

## **Diamond 1 and Clarke's Shelter: report on excavations in the northern Drakensberg, Natal, South Africa**

by

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### **ABSTRACT**

Excavations at Diamond 1 and Clarke's Shelter in the northern Natal Drakensberg are reported. Both these sites postdate 5000 BP. Stone collections made by previous workers in the area are reanalysed and reinterpreted. Preliminary comments are made regarding the mid- and later Holocene prehistory of the northern Natal Drakensberg.

### **INTRODUCTION**

Test excavations were done at Diamond 1 and Clarke's Shelter (Fig. 1) in May 1980 as part of an archaeological survey of the Natal Drakensberg (Mazel 1981). These excavations revealed that both sites were moderately rich in archaeological material. In 1981 a project aimed at investigating the ecology of the Holocene Late Stone Age (LSA) occupants of the Tugela Basin was initiated. Research was to be concentrated in the four ecological zones of the Tugela Basin recognised by Edwards (1967). Diamond 1 and Clarke's Shelter, the first sites to be excavated in this programme, were examined in the first half of 1981. Although information from these sites has already been published (Mazel 1984) this article contains the final site reports. The two sites are published together as they compliment each other.

Investigations into the prehistory of this area have been carried out intermittently for over 50 years. These have generally been of an unsystematic nature. This is illustrated by the fact that besides the elementary observations that the area was inhabited by LSA peoples and that their lithic technology may be categorised into either the Smithfield or Wilton industries, or both, surprisingly little has emerged from these efforts. The first reported work was carried out in the early 1930's with the Wells expedition to the Cathkin Park and Cathedral Peak areas (Wells 1933) and the King & Chubb (1932) excavations in a large rockshelter in the Ebusingata Valley, adjacent to the Royal Natal National Park. A period of 15 years ensued before a small painted overhang in the Cathkin Park area was excavated by Albino (1947). Investigations have subsequently focused on both open sites and rockshelters and include Wilson's (1955) description of Wilton material on the Natal slopes of the northern Drakensberg, Willcox's (1957) and Holliday's (n.d.) excavations at Main Cave and Pager's (1971) and Willcox's (1971) joint excavations in the Ndedema Gorge.

Although the abovementioned sites have been categorised as belonging mainly to the Smithfield Industry with only a few belonging to the Wilton Industry, at best one can agree with Sampson (1974) that these sites have affinities with

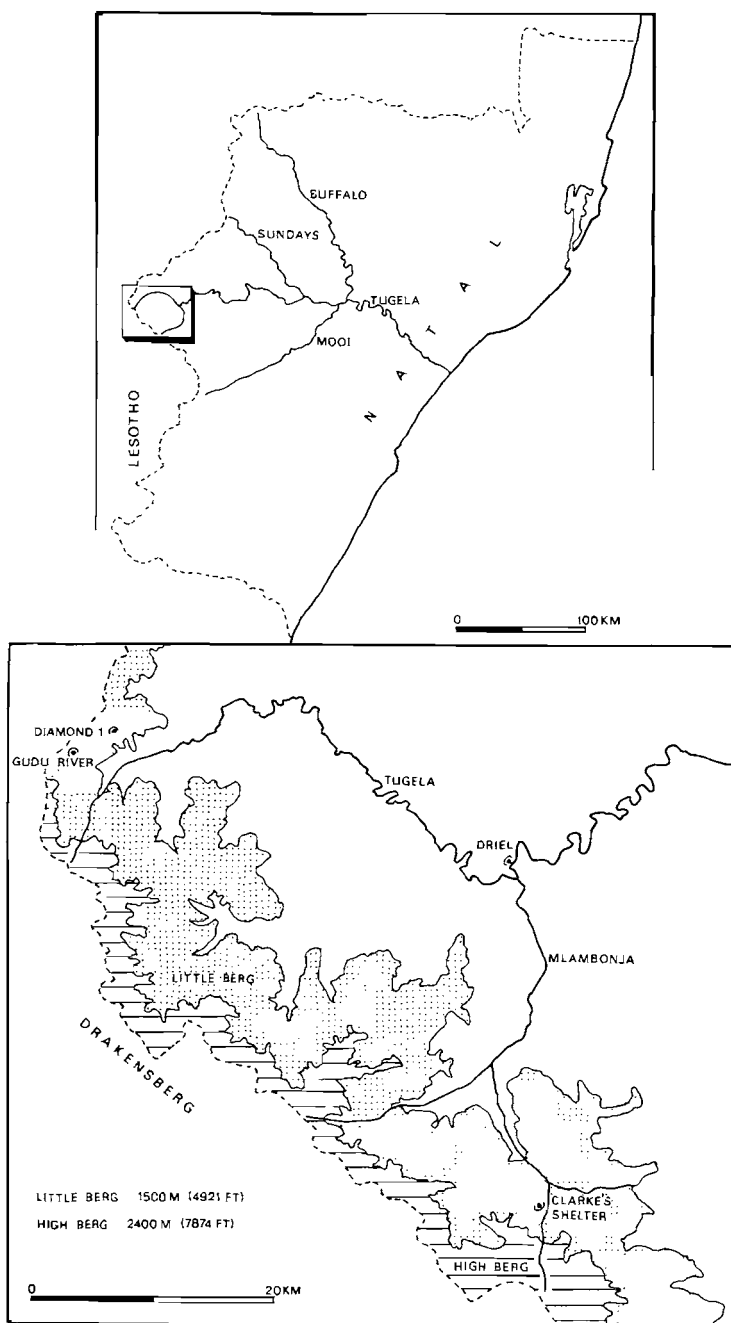


Fig. 1. Map of the northern Natal Drakensberg showing the location of Diamond 1, Clarke's Shelter and Gudu River Shelter.

Smithfield B, C, and N and the Wilton Industries. The appropriateness of categorising these sites into Industries is discussed later.

#### DIAMOND 1

##### Introduction

Diamond 1 (S 28°29'32":E 28°56'52"), situated in the northern half of the Royal Natal National Park, is a large, open rockshelter approximately 40 m long, 5 m deep and more than 10 m high. No rock paintings are present. The site was first examined between 8–13 May 1980, and the excavations were expanded (12–23 May 1983) as part of the project already mentioned.

The site is located high up on the southern end of the Diamond spur, at an altitude of 1875 m (6150 ft). It is at the base of the Clarens Formation, formerly known as Cave Sandstone. Facing south, the site would normally only have received sun for a short part of the day but, as it is screened by a patch of indigenous Mountain *Podocarpus* Forest, the sunshine it should receive is further reduced, making it a relatively cold living site. No sun shone into the site during our stays. According to Edwards (1967:177) 'temperatures [in the Mountain *Podocarpus* Forest] are considerably lower and more severe than in Mist Belt Mixed *Podocarpus* Forest. Moderate frosts occur even on steeply sloping ground.' The slope in front of Diamond 1 is very steep and on numerous occasions during our stays frost was noted on the ground in front of the rockshelter. The patch of forest also totally restricts visibility from within the shelter. On the other side of the forest patch there is, however, a panoramic view of the uppermost reaches of the Tugela River, the western edge of the Bergville–Ladysmith plains (Fig. 2) and the well-known Amphitheatre.

Although the site's immediate environs is dominated by Mountain *Podocarpus* Forest it is also on the boundary of the thin *Protea* Savanna belt and the Subalpine Fynbos and Grassland (Edwards 1967). Edwards (1967:187) has commented that on the Subalpine belt 'below 8 500 feet . . . consociations of *Themeda triandra* and *Festuca costata* occur on warm north-facing and on cool



Fig. 2 View overlooking the western edge of the Bergville–Ladysmith plains from in front of the patch of forest screening Diamond 1.

south-facing slopes respectively. In the lowest part of the Subalpine belt, *Themeda* consociations resemble *Themeda-Trachypogon* Highlands Grassland, but temperate species are more prominent.' The LSA occupants of this site would not only have had ready access to the Subalpine Fynbos and Grassland, Mountain *Podocarpus* Forest, and *Protea* Savanna Belt, but also to regions of *Themeda-Trachypogon* Highlands Grasslands of the lower Drakensberg. The three latter vegetation types mentioned above are equivalent to Acocks' (1975) Highlands Sourveld Grassland (Edwards 1967). Combined, these different vegetation units would have contained an abundance of exploitable plant foods, especially in the spring and summer. The seasonal nature of the exploitable food resources in the Natal Drakensberg has already been discussed by Carter (1970), Vinnicombe (1976), Cable, Scott & Carter (1980) and Cable (1982). Although these papers concentrate specifically on the southern Drakensberg their comments on food availability apply equally to the areas under review. Cable (1982:88-89) concluded that spring and summer in the Highlands Sourveld 'was a time of peak resource productivity with abundant plant foods, particularly the corms of various species of *Iridaceae*, large aggregations of antelope and seasonal spawning runs of freshwater fish all being available at this time'.

#### Excavation

Twenty square metres were excavated in the centre of the shelter (Figs 3 & 4). These excavations sampled the bulk of the archaeological deposits. A partly false impression is created by Fig. 3 which shows large unexcavated areas. It should be noted that the deposits thin out considerably on the eastern side of the shelter (and on the R/S line are less than 5 cm thick) (Fig. 5) and that the deposits adjacent to the back wall on the west side were tested and found to be almost sterile.

None of the squares was excavated to bedrock except in a thin stretch contiguous to the back wall where bedrock rises sharply and underlies the lower Layer 1 and Layer 3 deposits. The excavations were stopped in four squares after

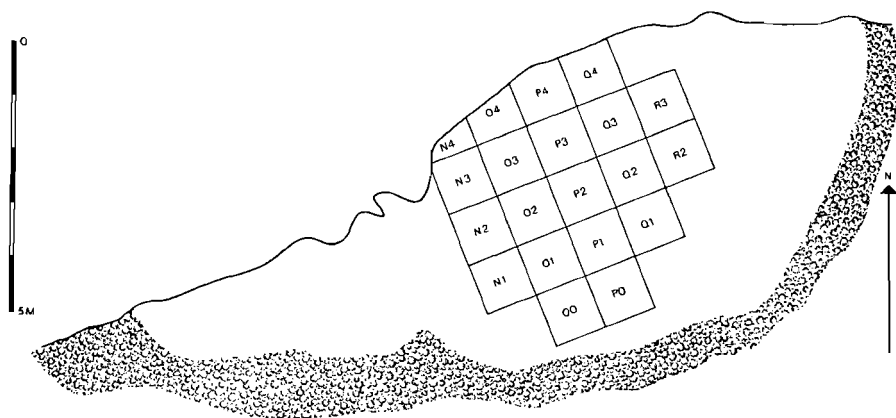


Fig. 3. Diamond 1: Plan of shelter.



Fig. 4. Diamond 1: At the end of the 1981 excavation season.

digging 50 cm into an almost sterile white spall layer and at the top of this layer in the remaining squares. A test pit straddling two squares was excavated a further 30 cm into the white spall layer (thus 80 cm into the white spall layer), but these deposits were sterile. Considering the time available and the aims of the project it was decided to concentrate on the upper, richer deposits rather than probe deeper and reach bedrock.

Four layers, besides the Surface Layer, have been recognised and have been designated, from the top, Layers 1 to 4 (Figs 5–7). Roots were present at all levels in the deposit.

*Surface Layer:* a very thin layer of loose brown sand and vegetation which covered the entire excavation area. 0,38 m<sup>3</sup> of deposit was excavated from this layer.

*Layer 1:* comprised two main components and some smaller ones. Both the main components were of a light-coloured brown sand, the texture of which was either soft and loose or crusty. Together these stratigraphic units, known as Crusty Brown Sand (CBS) and Loose Brown Sand (LBS), occurred in all the squares excavated. A charcoal sample from the base of CBS in P2 produced a date of  $2810 \pm 60$  years BP (Pta 2977). A small hearth in LBS was removed from R2. Underlying CBS and LBS on the west side of the excavation and adjacent to the back wall was an even lighter-coloured sand which had coloured streaks in it, predominantly orange but also occasional charcoal-derived darker streaks. This unit, called Streaky Sand, was excavated in N2, N3, O4, P4 and Q4. Adjacent to

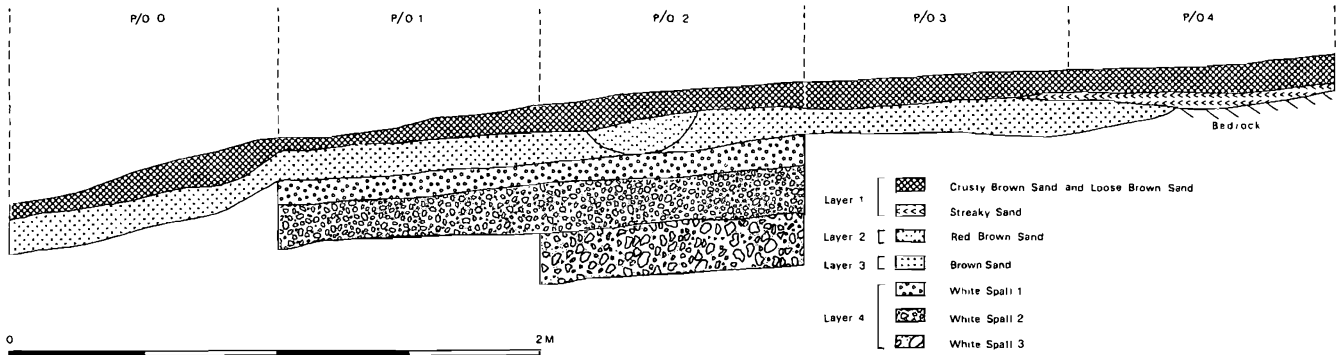


Fig. 5. Diamond 1: 2/3 section.

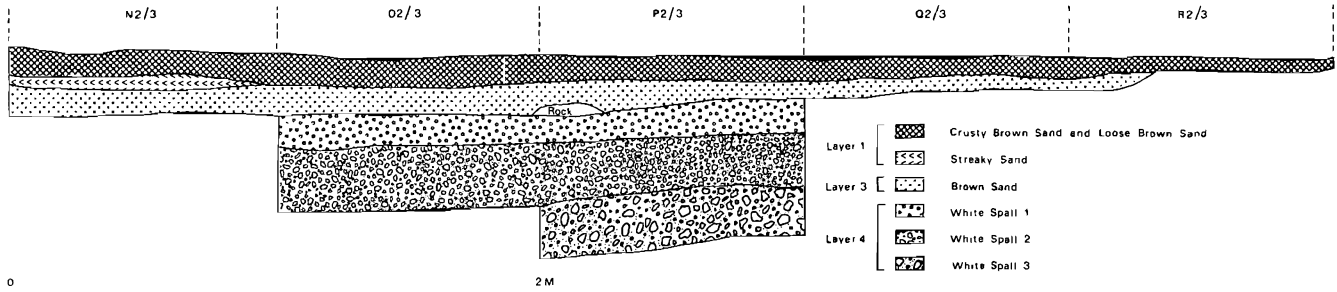


Fig. 6. Diamond 1: P/O section.

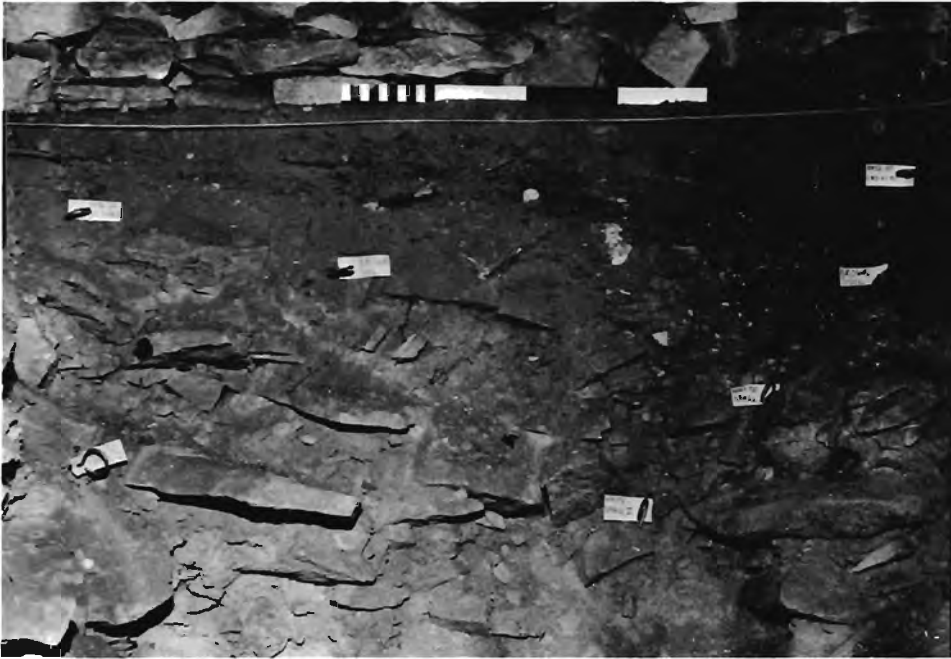


Fig. 7. Diamond 1: Photograph of the P1/P2 section.

the back wall in P4 and Q4 this unit overlay bedrock. The final component of this layer was a small pit of fine brown sand which extended from the surface of Layer 1 well into Layer 2 in N2 and O2. This unit was known as Fine Brown Sand. 1,6 m<sup>3</sup> of deposit was excavated from this layer.

*Layer 2:* the smallest recognised layer. This was a hearth which had been excavated into Layer 3. The deposit is a fine sand with a reddish-brown colour. It had a localised distribution occurring only in N1, O1, O2 and P2. In several places this unit, known as Red Brown Sand, penetrated the top of layer 4. A charcoal sample taken from P2 was dated to  $3020 \pm 60$  years BP (Pta 2974). Only 0,12 m<sup>3</sup> of deposit was excavated from this layer.

*Layer 3:* comprised of a brown sand of varying shades with a texture intermediate between the soft and crusty deposits of Layer 1. These deposits, called Brown Sand, covered the entire excavation area and were primarily light brown in colour, but in areas where they were associated with charcoal they were darker brown. Towards the back wall they were of a lighter colour. In P4 and O4 the deposits overlay bedrock. A charcoal sample taken from the lower half of this layer in P4, and from just above bedrock, was dated to  $4900 \pm 60$  years BP (Pta 3246). 1,4 m<sup>3</sup> of deposit was removed from this layer.

*Layer 4:* essentially composed of white roof spalls with loose white sand between the spalls. It was excavated to a depth of 50 cm in a series of three spits in P1, P2, O1 and O2, and a further 30 cm in a small area straddling O1 and P1. Small quantities of bone and stone remains were recovered from the top 50 cm but

beneath that the deposit was sterile. 1,1 m<sup>3</sup> of deposit was excavated from this layer.

### Dating and correlation

It has already been suggested that the bulk of the Diamond 1 deposits date to between 3500 and 2500 years BP (Mazel 1984). Close re-evaluation of the dates and stratigraphy, however, indicates that this may not be the case. The Surface Layer and Layers 1 and 2 postdate 3000 years BP and the paucity of pottery in these layers suggest that the bulk of these deposits predate 2000 years BP. At both Clarke's Shelter (this paper) and Driel Shelter (Maggs & Ward 1980), which is, as the crow flies, 25 km from Diamond 1, across gentle terrain, comparatively larger samples of pottery were recovered from deposits postdating 2000 years BP. The precise dating of Layer 3 is more problematic as the C<sub>14</sub> sample (Pta 3246) was taken from the bottom of the layer where it overlies bedrock and close to the back wall and therefore may not date the bulk of these deposits. Without further dating it is not feasible to comment further on whether Layer 3 represents a slow but constant deposition of sand spanning the 5000 to 3000 years BP period, or whether it results from a single, or several, rapid depositional episodes. Although, when considering the amount of deposit and size of lithic and faunal assemblages recovered from this layer, one of the latter alternatives seem most plausible. For the interpretation of the excavated material the deposits are assumed as dating generally between 5000 and 3000 years BP.

### Stone artefacts

The stone assemblage is the largest cultural component recovered from this site, 6 482 artefacts were collected (Table 1). Little comment is required on terminology as this follows that used recently in Natal and elsewhere in southern Africa (eg. Maggs & Ward 1980, J. Deacon 1982). The same applies to the scraper and adze parameters measured. The term adze is used in preference to notched scraper, concave scraper and spokeshave, while acknowledging that they are the same tools, morphologically and functionally, as those described using the abovementioned terms in other reports on the LSA of Natal. The term scraper/adze requires definition—it refers to pieces which have indisputable scraper and adze working edges. Special care has been taken to avert the tendency of mistaking heavy backing for adze retouch. Backed pieces which have pointed tips have been differentiated from backed blades. It should be noted, however, that backed blades may often include backed points with broken tips. Layers 2 and 4 are omitted from the ensuing discussion due to the small size of their assemblage.

*Raw materials:* Cryptocrystalline rocks such as agates, jaspers and chalcedony etc., which are collectively referred to hereafter as CCS, comprise the overwhelming majority of rock types in the overall lithic assemblage. They are followed by quartzite, hornfels, quartz and basalt and fossilised wood. The raw material composition of the different artefact categories is shown in Table 2. Amongst the waste classes CCS is the most abundant, but a faintly discernible trend is the decrease in CCS frequency through time and corresponding increase



TABLE 1

Diamond 1: stone artefact frequencies.

	Surface			Layer 1			Layer 2			Layer 3			Layer 4		
	n	% Category	% Layer	n	% Category	% Layer	n	% Category	% Layer	n	% Category	% Layer	n	% Category	% Layer
Waste															
Chips, chunks and flakes	387	98,98		2043	98,98		164	100,00		3326	99,40		50	100,00	
Cores	4	1,02		21	1,02					20	0,60				
<i>Total</i>	391		90,51	2064		91,73	164		93,71	3346		93,62	50		98,03
Utilised															
Pieces esquillés										1	1,09				
Utilised flakes	16	100,00		76	100,00		8	100,00		89	96,74				
Rubber										1	1,09				
Lower Grindstone										1	1,09				
<i>Total</i>	16		3,70	76		3,38	8		4,57	92		2,57			
Formal															
Scrapers	13	52,00		71	64,55		1	33,33		73	53,68				
Scraper/adzes				2	1,82					3	2,21				
Adzes	5	20,00		16	14,55		1	33,33		6	4,41		1	100,00	
Backed pieces	1	4,00		13	11,82		1	33,33		43	31,62				
Borer				1	0,91										
Bifacial point										1	0,74				
Arrowhead										1	0,74				
Miscellaneous retouched pieces	6	24,00		7	6,36					9	6,62				
<i>Total</i>	25		5,79	110		4,89	3		1,71	136		3,81	1		1,96
Layer Total	432			2250			175			3574			51		

TABLE 2

Diamond 1: raw material composition of the different artefact categories.

		Waste										Total n
		Quartz		Quartzite		Hornfels		CCS		Other		
		n	%	n	%	n	%	n	%	n	%	
Surface	L	18	4,60	14	3,58	66	16,88	292	74,68	1	0,26	391
Layer	1	33	1,60	168	8,14	100	4,84	1757	85,13	6	0,29	2064
Layer	2	—	—	27	16,46	4	2,44	132	80,49	1	0,61	164
Layer	3	18	0,54	235	7,02	42	1,26	3045	91,00	6	0,18	3346
Layer	4	—	—	5	10,00	1	2,00	6	82,00	3	6,00	50
Utilised												
Surface	L	—	—	1	6,25	1	6,25	14	87,50	—	—	16
Layer	1	—	—	5	6,58	4	5,26	67	88,16	—	—	76
Layer	2	—	—	—	—	2	25,00	6	75,00	—	—	8
Layer	3	—	—	3	3,26	6	6,52	81	88,04	2	2,17	92
Layer	4	—	—	—	—	—	—	—	—	—	—	0
Formal												
Surface	L	—	—	—	—	1	4,00	24	96,00	—	—	25
Layer	1	—	—	1	0,93	1	0,93	108	98,18	—	—	110
Layer	2	—	—	—	—	—	—	3	100,- 00	—	—	3
Layer	3	—	—	2	1,47	3	2,21	131	96,32	—	—	136
Layer	4	—	—	—	—	—	—	1	100,- 00	—	—	1
Total Layer												
Surface	L	18	4,16	15	3,46	68	15,70	330	76,21	1	0,23	432
Layer	1	33	1,47	174	7,73	105	4,67	1932	85,86	6	0,27	2250
Layer	2	—	—	27	15,48	6	3,43	141	80,57	1	0,57	175
Layer	3	18	0,50	240	6,72	51	1,43	3257	91,18	6	0,17	3572
Layer	4	—	—	5	9,80	1	1,96	42	82,35	3	5,88	51
Overall												
		69	1,06	461	7,11	231	3,56	5702	87,99	17	0,26	

in hornfels frequency. The same pattern is not repeated amongst the utilised and formal tool categories. CCS comprises almost 90 % of the utilised pieces. However, it is amongst the formal tools that CCS was most preferred; here they constitute over 95 % of the assemblages.

*Waste:* Waste constitutes over 90 % of the total artefacts. Within the waste category chips, chunks and flakes are approximately 99 % of the assemblages and cores the remaining 1 %.

*Utilised:* Utilised pieces vary between 3 % and 5 % of the total artefacts. In the upper three layers only utilised flakes were recovered. A wider variety exists in Layer 3 and besides utilised flakes, pieces esquillés, a rubber, and a lower grindstone were recovered. Nevertheless, utilised flakes are still dominant and comprise 97 % of the assemblage. Perhaps the most interesting feature of these assemblages is the paucity of grinding implements.

*Formal tools:* Formal tools vary between 4 % and 6 % of the total artefacts. Unlike the waste and utilised categories a chronological sequence is discernible in the formal tool record. Scrapers are the most numerous of the formal tools and vary between 52 % and 65 % of the formal tool assemblages, but with no

temporal trend. Adze and backed piece proportions, on the other hand, exhibit patterned trends: backed piece proportions decreased through time (32 % to 4 %) and this is correlated with an increase in adze proportions (7 % to 20 %). All but four (15 %) of the adzes recovered were worked along one edge only. On the outstanding four adzes two sides have been worked, and there were two each from the Surface Layer and Layer 3.

Backed scrapers were present in Layers 1 and 3, comprising 18 % and 22 % of the scraper assemblages respectively. In Layer 1 almost all the backing was along one or both side laterals whilst in Layer 3 an almost equal amount were backed along one side and opposite the scraping edge.

A significant feature of the backed piece assemblages is that only one segment was recovered and that the rest of the diagnostic backed pieces are backed points or backed blades (Table 3).

TABLE 3

Diamond 1: backed piece assemblages.

	Surface		Layer 1		Layer 2		Layer 3	
	n	%	n	%	n	%	n	%
Backed points	1	100	6	46,15	1	100	17	39,53
Backed blades			4	30,77			13	30,23
Segments							1	2,32
Miscellaneous backed			3	23,08			12	27,91
Total	1		13		1		43	

Besides scrapers, adzes and backed pieces only a further three types of diagnostic formal tools were recovered and, then, with only one of each: these are a borer (Layer 1), a bifacial point (Layer 3) and an arrowhead (Layer 3). A selection of formal tools, including scrapers, adzes, backed pieces and a bifacial point and arrowhead are illustrated in Figs 8–10.

The scraper and adze length, width and height dimensions and adze notch width and depth dimensions were measured. As none of the adzes and only one of the measured scrapers is not of CCS no raw material distinctions have been made. Consequently raw material changes cannot be cited as influencing artefact sizes.

Uniformity characterises the scraper dimensions when comparing the different layers, with the mean width and mean height identical and small differences in the mean length (Fig. 11). The differences in mean scraper length are partly due to there being three scrapers in Layer 1 longer than 30 mm, two in Layer 3 and none in the Surface Layer. The width: length ratios correspond with the variations in scraper length (Fig. 11), but these differences are of a small order and the mean scraper shape is essentially the same in all three layers.

Although the measured adze sample is too small to indicate definite trends they have been included because they suggest a pattern which should be tested at other contemporary sites in the Tugela Basin. Adze length apparently increases

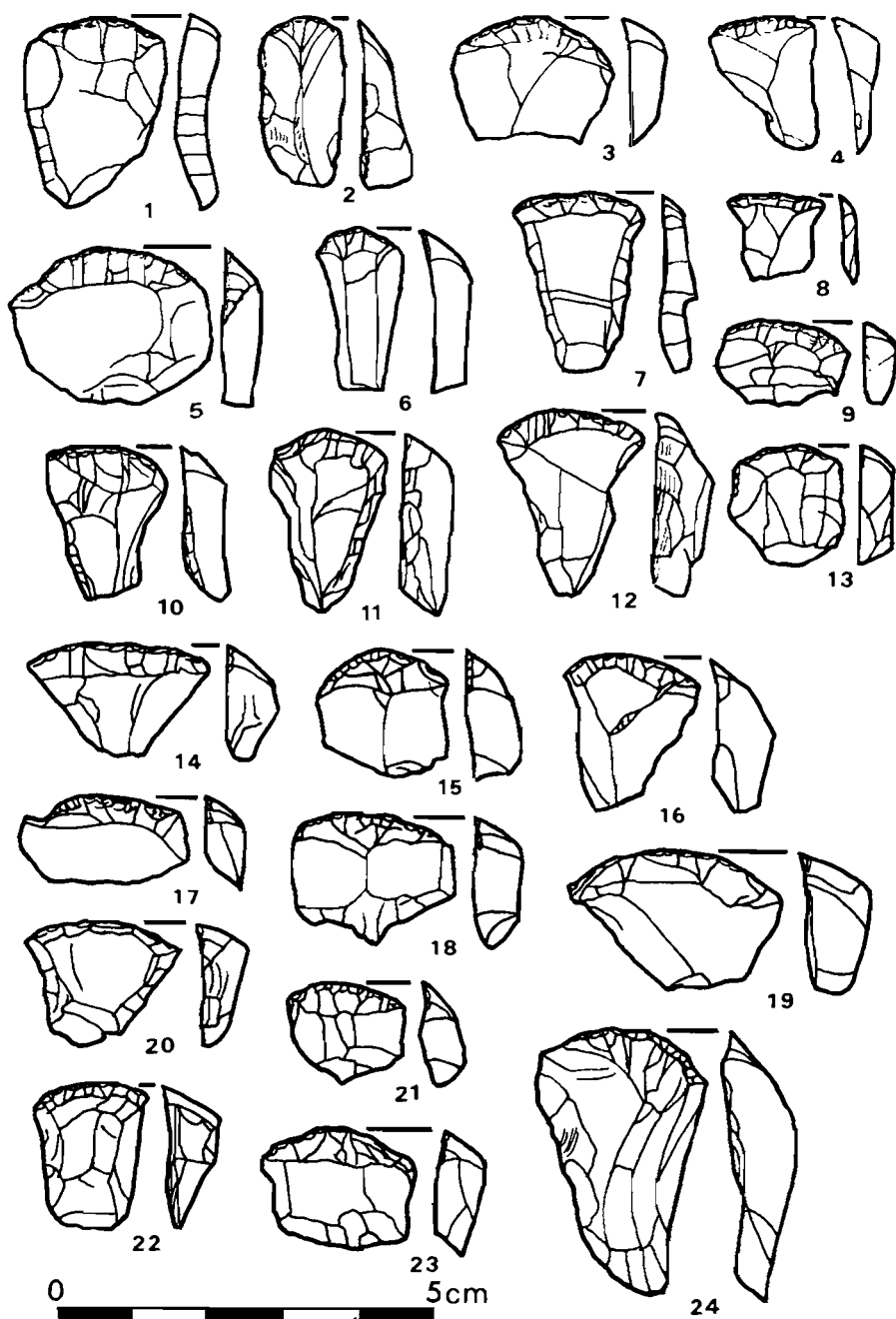


Fig. 8. Diamond 1: Scrapers; Surface Layer, 1-3, Layer 1, 4-11; and Layer 3, 12-24. All made from CCS.

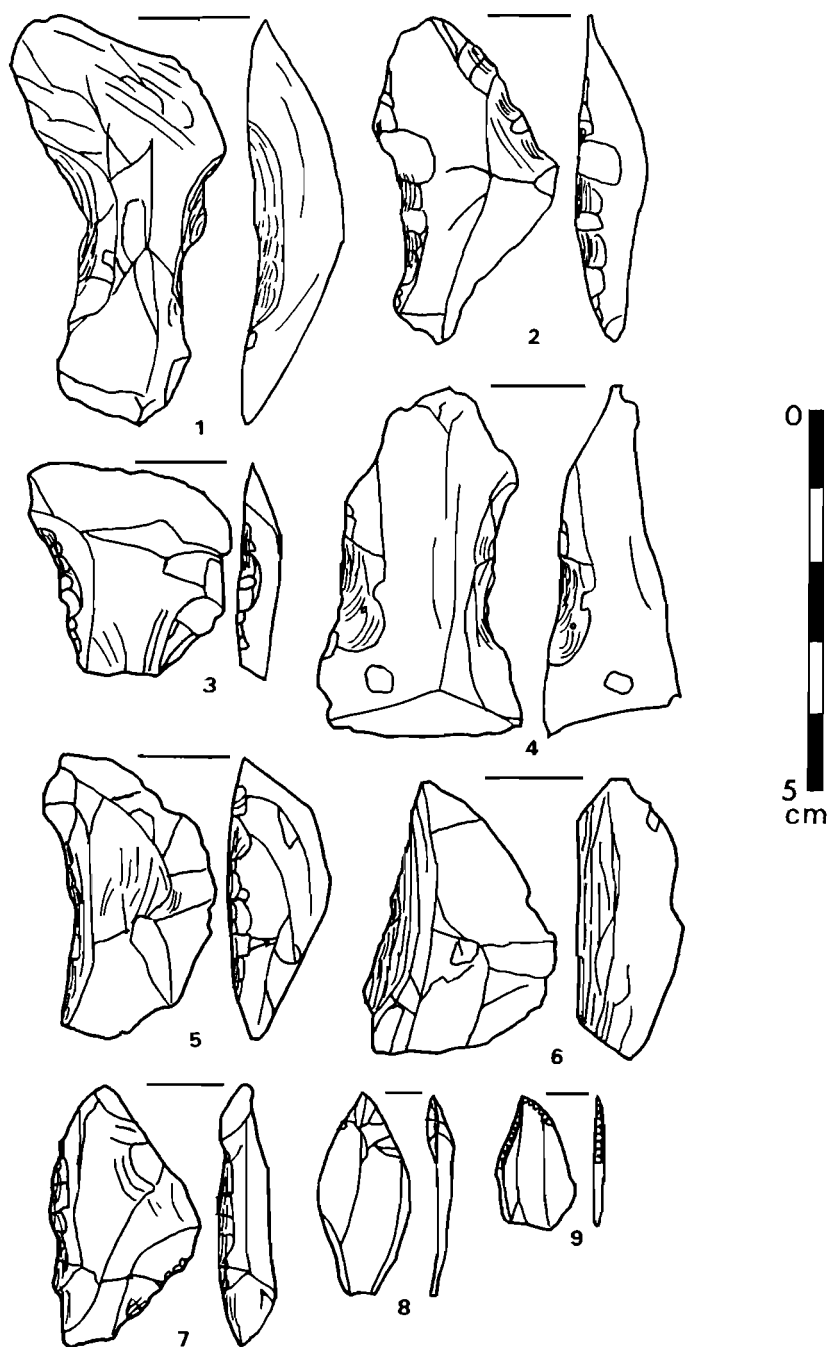


Fig. 9. Diamond 1: Adzes; Surface Layer, 1 & 2; Layer 1, 3 & 4; Layer 3, 5-7; Bifacial Point; Layer 3, 8; Arrowhead; Layer 3, 9. All made from CCS.

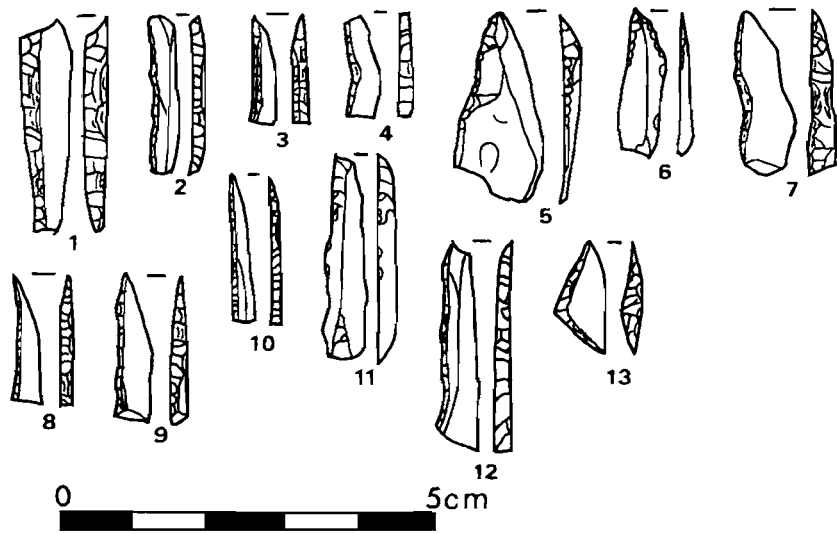


Fig. 10. Diamond 1: Backed pieces; Layer 1, 1-5; Layer 2, 5-13. All made from CCS.

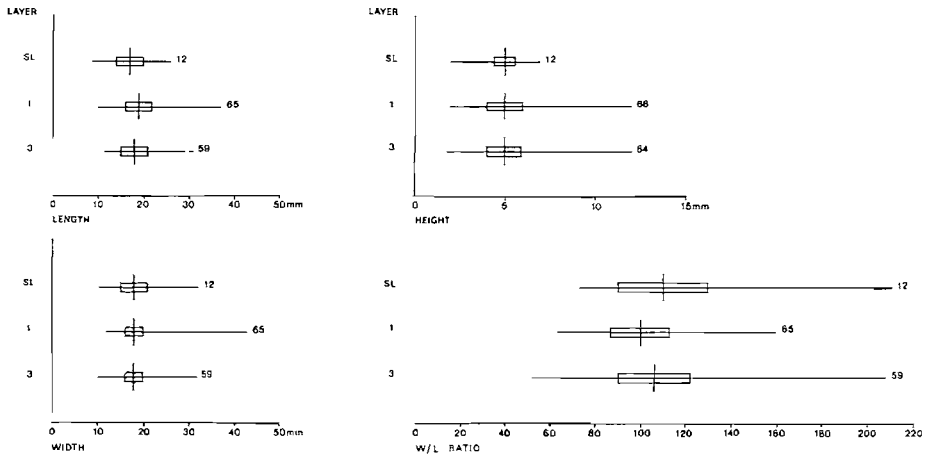


Fig. 11. Diamond 1: Dice-Leraas diagram of scraper dimensions.

between roughly 5000 and 1500 years BP. No corresponding increase in mean width is evident (Fig. 12). Notch depth and width also increases through time (Fig. 12), but this is more noticeable for notch depth.

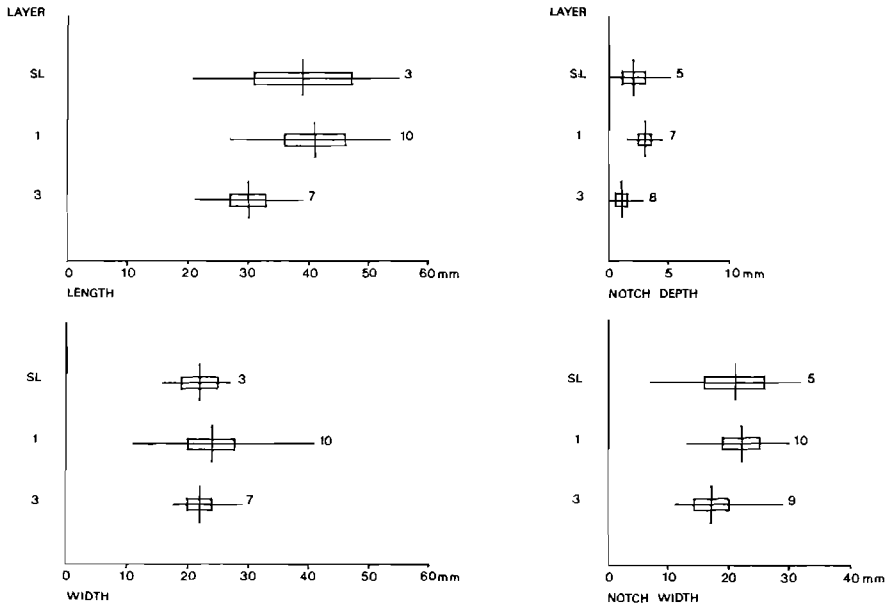


Fig. 12. Diamond 1: Dice-Leraas diagram of adze dimensions.

### Pottery

Only seven sherds were recovered from Diamond 1; six from Layer 1 and one from Layer 3. All indications are that the sherd in Layer 3 is intrusive, as it was recovered from one of the squares in which Layer 2 had been excavated into Layer 3. One thin, black, burnished sherd was found in Layer 1. Besides this, two other types of sherds are present; three sherds varying between 11 and 13 mm in thickness which have orange cores and three thinner sherds between 4 and 6 mm in thickness which have grey cores. This indicates that at least two vessels are represented, and perhaps three.

### Ochre

Two pieces of ochre were recovered from Layer 1 and six pieces from Layer 3; none showed signs of utilisation.

### Bead

One ostrich eggshell bead (6 mm outer diameter, 2,5 mm inner diameter) was found in the Surface Layer.

### Worked bone

Two pieces of worked bone were recovered; one, from the Surface Layer, is an adiaagnostic fragment of a point, awl or linkshaft while the other, from Layer 1, is a broken tip with one unbroken edge flattened and reasonably sharp which suggests that it is a fragment of a spatula tip.

### Fauna

Although the Diamond 1 macro- and microfaunal assemblages are relatively small they are significant. The macrofaunal assemblage is presented according to individual layers but has been combined for purposes of the ensuing discussion (Table 4). The microfaunal data are presented combined (Table 5).

Two significant features emerge when investigating the macrofaunal assemblage; firstly, that antelopes and zebras overwhelmingly dominate the meat protein input and, secondly, that the antelope sample is comprised primarily of large gregarious plains species.

TABLE 4

Diamond 1: number of Bones/MNI.

	Levels				
	S	1	2	3	4
Leporidae gen. et sp. indet., hare	1/1	2/1			
<i>Papio ursinus</i> , chacma baboon	1/1	1/1			
<i>Felis cf. caracal</i> , caracal				1/1	
<i>Panthera leo</i> , lion		?1/1			
<i>Procavia capensis</i> , rock hyrax	14/3	16/2		5/1	
<i>Equus cf. quagga</i> , zebra				1/1	
<i>Connochaetes gnou/Alcelaphus buselaphus</i> , wildebeest/hartebeest	1/1	3/1	3/1	2/1	
<i>Damaliscus dorcas</i> , blesbok		1/1		3/1	
<i>Pelea capreolus</i> , grey rhebuck		1/1			
<i>Raphicerus</i> sp. steenbok/grysbok		1/1			
Bovidae—general					
small		6/1	2/1	12/1	
small-medium	1/1	7/1	1/1	4/1	1/1
large-medium	1/1	9/1	9/1	12/2	1/1
large		1/1	1/1	3/1	

(NB: small bovid category includes teeth also assigned to *Raphicerus* sp.; small-medium category includes teeth also assigned to *Pelea capreolus*; large-medium category includes teeth also assigned to *Connochaetes gnou/Alcelaphus buselaphus* and *Damaliscus dorcas*)

TABLE 5

Diamond 1: microfaunal assemblage.

<i>Dendromus mesomelas</i> , Brant's climbing mouse	1
<i>Rhabdomys pumilio</i> , striped field mouse	1
<i>Otomys cf. irroratus</i> , vlei rat	2
<i>Otomys laminatus</i> , laminate vlei rat	1
<i>Cryptomys hottentotus</i> , common mole-rat	1



65 % of the individually identified animals were antelope. Of the remaining ones it is unlikely that the baboons, caracal and lion (12 %) would have been eaten. Hares, dassies and a tortoise (23 %) on the other hand, can be regarded as sources of food, but are considerably less than the antelope input into the diet. Indeed, without exaggeration, the antelope meat weight probably represents more than 95 % of the total meat weight at this site.

The dominance of the antelope assemblage by larger plains species in all likelihood accurately reflects the general availability of antelope in the site's catchment area. Diamond 1 overlooks the western edge of the Bergville–Ladysmith plains which was recorded by early white travellers in this area as being bountiful with game (eg. Anderson 1888). These herds would have been visible from close to the shelter and hunting them would arguably have been easier and more rewarding than pursuing solitary, smaller species.

Dr Margaret Avery who analysed the microfaunal assemblage comments as follows: 'the same species are represented as at Clarke's Shelter, with the exception of *D. mesomelas*. This reflects the fact that both sites are surrounded by the same type of vegetation, and remarks referring to Clarke's Shelter apply equally to Diamond 1. The presence of *D. mesomelas* at this site is most likely to be due to the fact that there is a patch of forest in front of the cave, which is not the case with Clarke's Shelter.'

## Flora

Five as yet unidentified seeds were recovered from Layer 1.

## CLARKE'S SHELTER

### Introduction

Clarke's Shelter (S 29°01'15":E 29°18'58") is situated in the southern half of the Cathedral Peak State Forest. (Fig. 1). It is a small, open rockshelter approximately 12 m long, 4 m deep and more than 5 m high. Test excavations were conducted at this site from 26–29 May 1980 and then expanded between 3–8 May 1981.

This site is on a tributary of the Mhlwazine River which flows into the Mlamboja, a tributary of the Tugela. The site, at an altitude of 1 768 m (5 800 ft), is situated in the Clarens Formation. Although this site is poorly screened by vegetation there is only a good view down the small valley it is in, into the Mhlwazine Valley (Fig. 13). Facing NNW, it receives early morning sun as well as sunshine for most of the day.

The site is located close to the top of *Protea* Savanna belt (Edwards 1967) and in the base of the valley immediately below the site there is a patch of Mountain *Podocarpus* Forest. As with Diamond 1 the occupants of this site would have had ready access to the overlying Subalpine and Fynbos Grassland, the Mountain *Podocarpus* Forest, the *Protea* Savanna and the *Themeda*–*Trachypogon* Highland Grassland which, according to Edwards' (1967) maps, penetrates approximately 10 km up the Mhlwazine Valley. Thus the seasonal nature of the food resources mentioned for Diamond 1 applies equally here.



Fig. 13. Clarke's Shelter: View from the site.

### The Rock Paintings

Paintings from this site have already been published (Pager 1975, Mazel 1982). The paintings were recorded in September 1979 as part of the Natal Drakensberg rock art conservation project (Mazel 1981). This involved a written description recording each image individually and detailed monochrome and colour slide photography. The openness of the rockshelter exposes the painted surface to the elements and this has, and is still contributing to the severe exfoliation of the paintings (Figs 14 & 15 cover the main panel).

177 individually painted images were counted (Table 6). It is not feasible to present a detailed description of the paintings, but the more interesting aspects are summarised here. Perhaps the most outstanding feature is the comparatively large number of paintings (15 % of total) with both human and animal characteristics or are animal torsos with antelope heads and wing-like limbs (Figs 16 & 17). Only 2 % of close on 20 000 paintings previously recorded by me in the Natal Drakensberg were of this nature (Mazel 1981). These images have been recorded and categorised individually but of note is the fact that they are associated, by juxtapositioning and superimpositioning, with a large proportion of the paintings. Paintings of this kind have been subjected to many different interpretations but the most plausible explanation is that of Lewis-Williams (1981) who, amongst other things, argues for their symbolic and metaphorical nature.

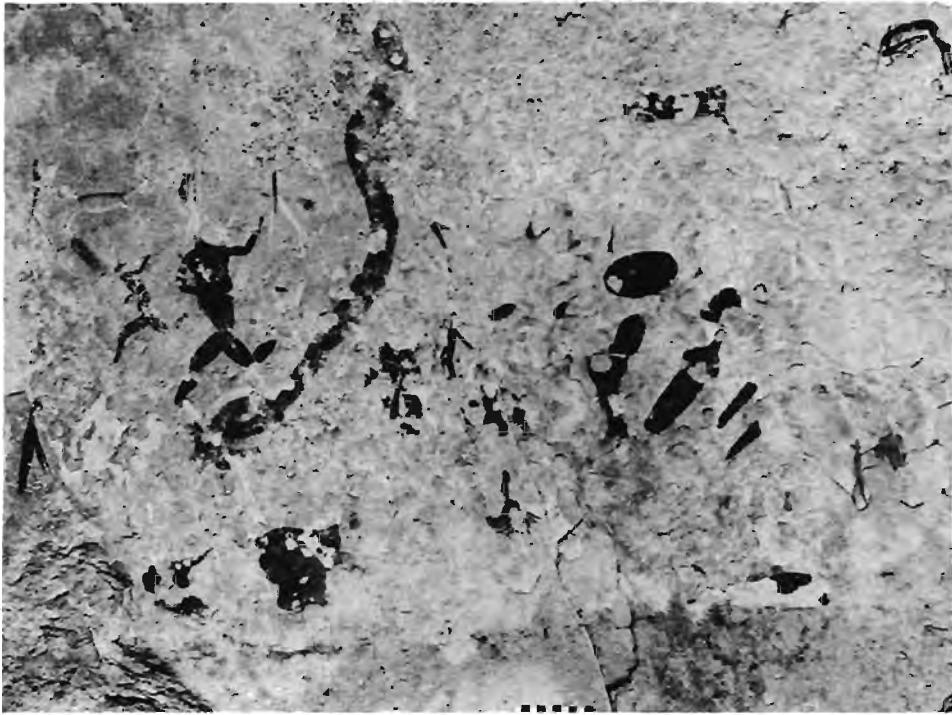


Fig. 14. Clarke's Shelter: Left side of main rock painting panel (scale in centimetres).

Another characteristic separating this site from the Drakensberg norm is the frequency of animals and humans. In a previous study humans accounted for 56 % of the paintings recorded in the Natal Drakensberg and animals 28 % (Mazel 1981), whereas at Clarke's Shelter only 20 % of the paintings were of humans and 35 % of animals. A further discrepancy exists in the eland and rhebuck frequencies: at Clarke's Shelter eland and rhebuck comprise 34 % and 54 % of the antelope painted but in the overall Natal Drakensberg sample they were 54 % and 32 % respectively (Mazel 1981). Other numerical differences of this kind exist but the examples presented are sufficient to illustrate that the content of paintings in Clarke's Shelter differs from the Natal Drakensberg norm. Whether this phenomenon is crucial to the understanding of the site's deposits and cultural and faunal assemblages is not known. Superficially there is no indication that they are. It is doubtful whether one would be able to identify a link between paintings, archaeological deposits and material when studying sites on an individual basis. In order to achieve this the excavation of many painted sites would be necessary.

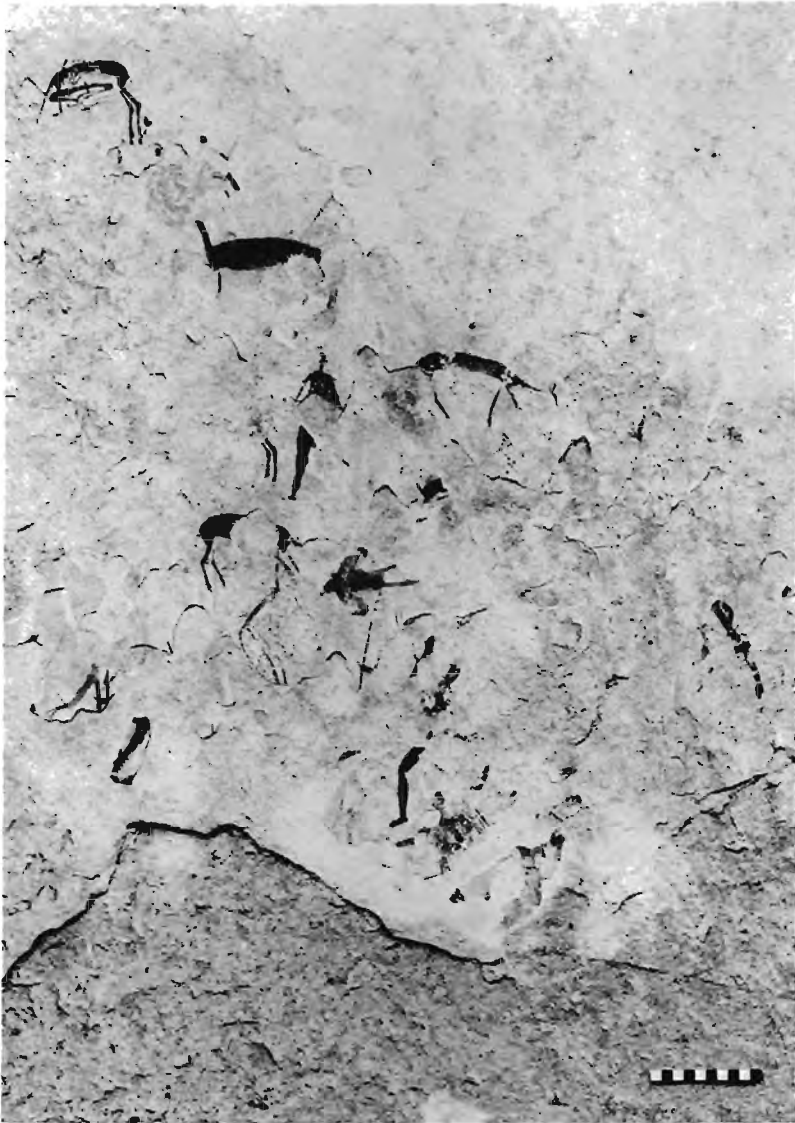


Fig. 15. Clarke's Shelter: Right side of main rock painting panel (scale in centimetres).

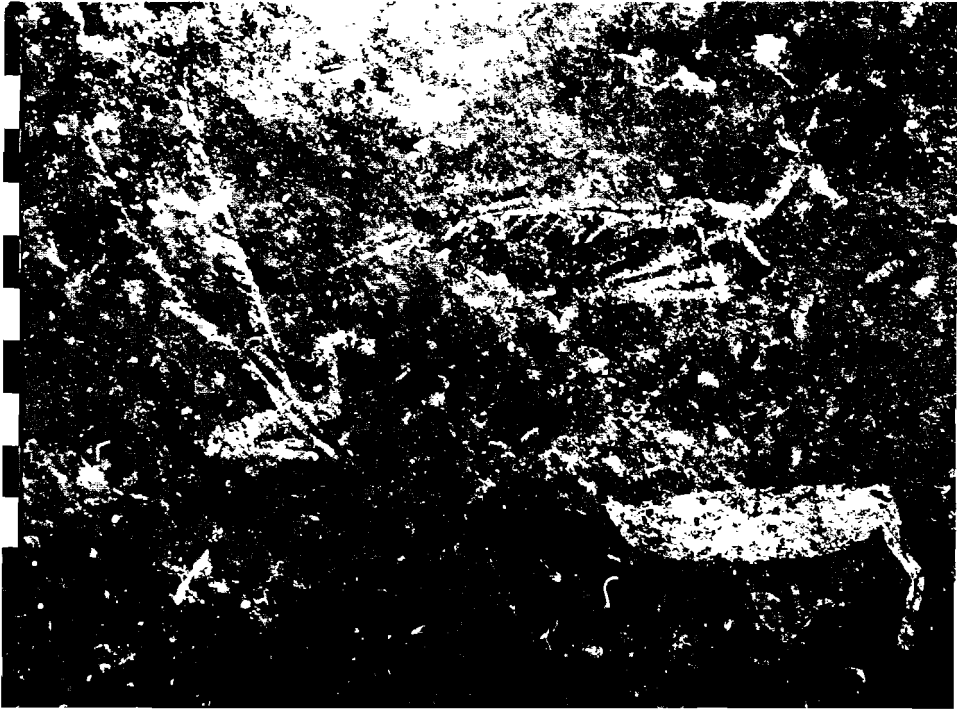


Fig. 16. Clarke's Shelter: Trance buck (scale in centimetres).



Fig. 17. Clarke's Shelter: Trance buck and rhebuck (scale in centimetres).

TABLE 6

Clarke's Shelter: frequency of painted images.

	n	% Category	% Site Total
<b>Animals</b>			
Eland	21	34,43	
Rhebuck	33	54,10	
? Duiker	1	1,64	
Bushbuck	1	1,64	
Indeterminate Antelope	1	1,64	
Indeterminate Animal	4	6,56	
<i>Total</i>	61		34,46
<b>Humans</b>			
Male	3	8,33	
Indeterminate	33	91,67	
<i>Total</i>	36		20,34
<b>Animal &amp; human features</b>			
Therianthrope	17	62,96	
Trance Buck	9	33,33	
Mythical Animal	1	3,70	
<i>Total</i>	27		15,25
<b>Other</b>			
Arrow	1	1,89	
? Shape	10	18,87	
Line	35	66,04	
Stick	2	1,13	
Paint Marks	5	9,43	
<i>Total</i>	53		29,94
Site Total	177		

### The excavation

Ten square metres were excavated in the west of the shelter (Figs 18 & 19). Only two squares, J3 and K3, were excavated to bedrock. As with Diamond 1 the rich cultural and faunal deposits occurred in the upper 30 centimetres. The excavations were done following visible natural stratigraphy as closely as possible, but arbitrary spits were used when the natural stratigraphy was not discernible. Four stratigraphic layers have been recognised and have been designated, from the top, Layers 1 to 4 (Figs 20–22). Roots were present at all depths and were most prolific adjacent to the back wall and in the lower deposits.

*Layer 1:* comprised three units: surface scrapings, a subsurface deposit which is a fine, loose, pale brown sand rich in dassie excreta, and called Topsand, and a loose brown sand called Soft Brown. The first two units cover the whole excavation area whilst the third occurs only on the west side and primarily in M2, M3, L2 and L3. 0,5 m<sup>3</sup> of deposit was removed from this layer.

*Layer 2:* comprises a fine, pale brown sand deposit rich in dassie excreta, and was called Pale Brown Sand 1. It is distinguished from the similarly coloured deposit in Layer 1 by being noticeably more compact. Initially the division between Layers 2 and 3 was arbitrary, but as the excavations progressed, this division,

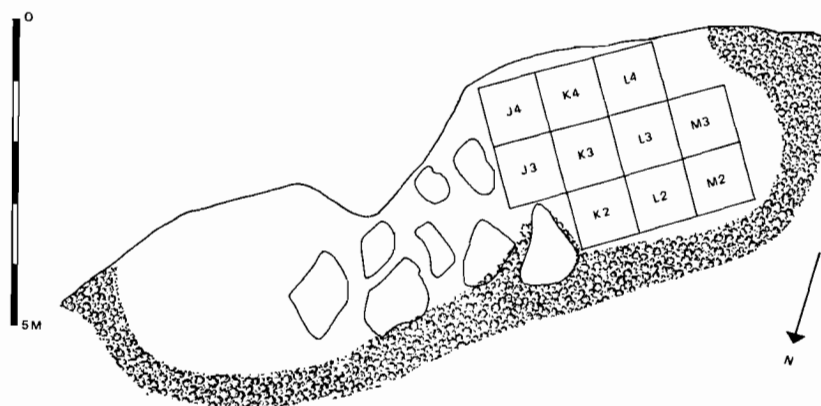


Fig. 18. Clarke's Shelter: Plan of shelter.



Fig. 19. Clarke's Shelter: At the end of the 1981 excavation season.

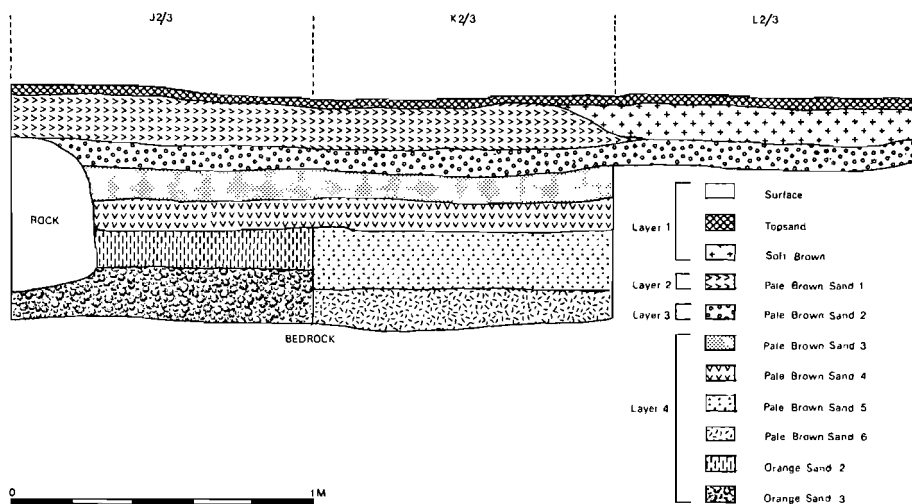


Fig. 20. Clarke's Shelter: 2/3 Section.

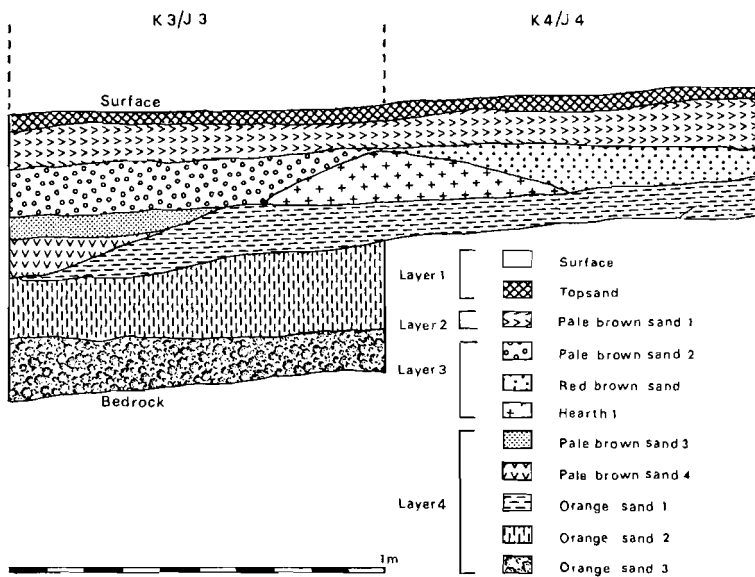


Fig. 21. Clarke's Shelter: J/K Section.



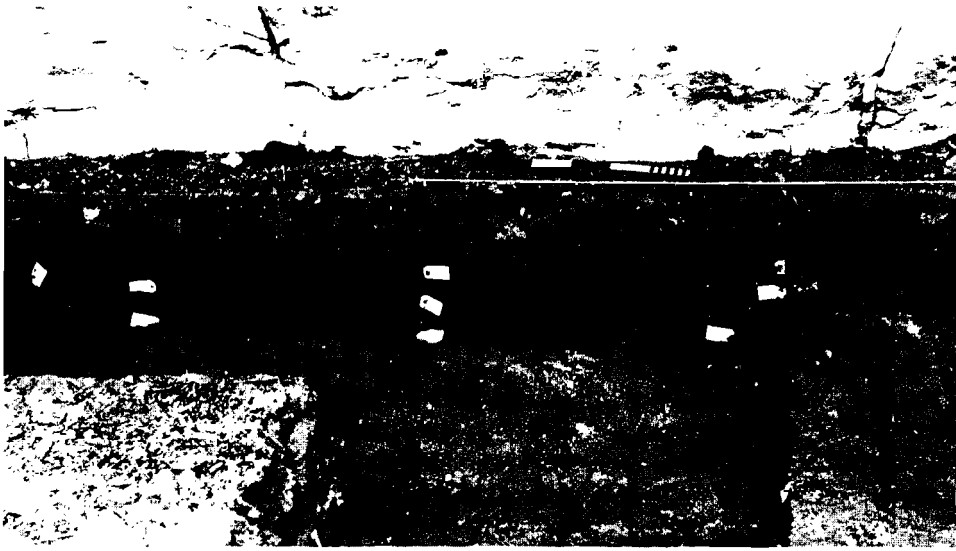


Fig. 22. Clarke's Shelter: Photograph of the 4/5 section.

quite fortuitously, coincided with natural stratigraphical boundaries. A charcoal sample from K4 produced a date of  $1580 \pm 50$  years BP (Pta 2973). 0,7 m<sup>3</sup> of deposit was excavated from this layer.

*Layer 3:* comprised three units: a pale brown sand similar to the Layer 2 deposits and called Pale Brown Sand 2, a red-brown sand excavated in J3 and J4 and lying alongside the pale brown sand deposit, called Red Brown Sand, and a hearth of white ash, called Hearth 1. The base of this hearth coincided with the base of the abovementioned deposits. The uncharacteristic shape of Hearth 1 (Fig. 21) suggests that it initially covered a larger area but was disturbed by later occupants. The base of Layer 3 was determined by a stratigraphic break in the deposits in the back and east side of the shelter where Red Brown Sand and Hearth 1 were underlain by orange sand. Elsewhere in the excavation the base of Layer 3 was taken to correspond with the stratigraphical changes outlined above, and also to isolate the temporal occurrence of pottery. No pottery was recovered from the underlying deposits. The pale brown sand deposit in K4 has been dated to  $2160 \pm 50$  years BP (Pta 2971) and a charcoal sample taken from Hearth 1 in J3 and J4 produced a date of  $2380 \pm 50$  years BP (Pta 3247). 0,5 m<sup>3</sup> deposit was excavated from the layer.

*Layer 4:* only excavated in J3 and K3, and almost devoid of cultural and other remains. It was excavated to bedrock. It is comprised of an orange sand which merges into a pale brown sand at the top of the layer. With increasing depth the deposit becomes uniformly lighter in colour and close to bedrock is almost white. Orange Sand (OS) spits 1 to 3 and Pale Brown Sand (PBS) spits 3 to 6 are included in this layer. The PBS 5 and 6 spits and OS 2 and 3 spits were almost sterile and contained less than one artefact per bucket. 0,8 m<sup>3</sup> of deposit was excavated from this layer.

### Dating and correlation

There is no indication of when this site was first occupied as the lower Layer 4 deposits were generally devoid of charcoal and poor in cultural remains. Examination of the vertical distribution of the Layer 4 assemblage indicates that more regular occupation began only in the top 10 to 15 cm, and comparison of this lithic assemblage with those from Diamond 1 suggests that it postdates 3000 years BP. This accords well with the other dates from this site. The dates of Layers 2 and 3 pose no problems, and are of special interest as they provide evidence relating to the first use of pottery in this area. No pottery was recovered from Layer 4 and Hearth 1, which was dated to  $2380 \pm 50$  years BP, but nine pieces were recovered from Pale Brown Sand 2 which have been dated to  $2160 \pm 50$  years BP. More discussion of this topic follows later. Layer 2 is dated to  $1580 \pm 50$  years BP and above this layer the deposits, except for the soft brown deposits, are between 2 and 4 cm thick and therefore the termination of occupation of this site probably does not postdate 1500 years BP by much.

### Stone artefacts

The lithic assemblage at Clarke's Shelter represents the site's primary cultural component, 5 400 pieces were recovered (Table 7). Comments on terminology presented in the Diamond 1 section applies here.

*Raw materials:* CCS comprises the overwhelming majority of the overall lithic assemblage. Following CCS numerically are quartzite, hornfels, 'other' (which includes basalt, dolerite and calcite) and quartz. Table 8 shows the raw material composition of the different artefact categories. The waste category is dominated by CCS (more than 85 %). CCS does not dominate the utilised category to the same degree as it does the other categories and this is due to the presence of lower grindstones and rubbers which were manufactured from either quartzite or basalt. As with Diamond 1 it is in the formal tool category that CCS is most preferred (comprising over 95 %). The other raw materials, except for quartz, were used for formal tools but in extremely small quantities.

*Waste:* Over 90 % of the total artefact assemblage is waste. The category is dominated by chips, chunks and flakes which constitute more than 98 % of the assemblages. Cores and grindstone fragments comprise the rest of this category.

*Utilised:* Utilised pieces vary between 1 % and 2 % of the total artefacts. Except for Layer 4, which has only five pieces, utilised flakes comprise over 85 % of this category. Besides one hammerstone (in Layer 1), lower grindstones and rubbers comprise the rest of this category. One lower grindstone from Layer 2 had ochre staining.

*Formal tools:* Formal tools range between 5 % and 8 % of the total artefact assemblage. Scrapers are the most common formal tools and range between 55 % and 69 % of the assemblages, but with no temporal trend. Adzes are the next most common formal tools. These increase in frequency from Layer 4 to Layer 3 (28 % to 35 %) but thereafter decrease to 21 % in Layer 1. 35 % of the adzes are either double or triple notched, with the former being more common (Table 9). The remaining diagnostic formal tools are backed pieces which vary between 4 %

TABLE 7

Clarke's Shelter: stone artefact frequencies.

	Layer 1			Layer 2			Layer 3			Layer 4		
	n	% Category	% Layer Total	n	% Category	% Layer Total	n	% Category	% Layer Total	n	% Category	% Layer Total
<b>Waste</b>												
Chips, chunks and flakes	1205	98,45		2429	99,14		1148	99,39		193	98,97	
Cores	14	1,14		19	0,78		6	0,52		2	1,03	
Grindstone fragments	5	0,41		2	0,08		1	0,09				
<i>Total</i>	1224		90,53	2450		93,80	1155		94,83	195		89,45
<b>Utilised</b>												
Utilised flakes	29	90,63		35	85,37		7	87,50		3	60,00	
Lower Grindstones	2	6,25		2	4,88		1	12,56				
Rubbers				4	9,76					2	40,00	
Hammerstone	1	3,13										
<i>Total</i>	32		2,37	41		1,57	8		0,66	5		2,29
<b>Formal</b>												
Scrapers	66	68,75		74	61,15		30	54,55		12	66,67	
Adzes	21	21,88		37	30,58		19	34,55		5	27,78	
Backed pieces	6	6,25		7	5,79		2	3,64		1	5,56	
Borers							1	1,82				
Ground Stone				1	0,83							
Miscellaneous												
retouched pieces	2	2,08		2	1,65		3	5,45				
Palette	1	1,04										
<i>Total</i>	96		7,10	121		4,63	55		4,52	18		8,26
<b>Layer Total</b>	1352			2612			1218			218		

TABLE 8

Clarke's Shelter: raw material composition of the different artefact categories.

	Waste										Total
	Quartz		Quartzite		Hornfels		CCS		Other		
	n	%	n	%	n	%	n	%	n	%	
Layer 1	14	1,14	64	5,22	23	1,88	1073	87,66	50	4,08	1224
Layer 2	32	1,31	141	5,76	74	3,02	2143	87,47	60	2,45	2450
Layer 3	6	0,52	86	7,45	51	4,42	987	85,45	25	2,16	1155
Layer 4	3	1,54	21	10,77	5	2,56	166	85,12	—	—	195
Utilised											
Layer 1	—	—	1	3,13	1	3,13	27	84,38	3	9,38	32
Layer 2	—	—	5	12,20	1	2,44	30	73,17	5	12,20	41
Layer 3	—	—	1	12,50	—	—	5	62,50	2	25,00	8
Layer 4	—	—	—	—	—	—	3	60,00	2	40,00	5
Formal											
Layer 1	—	—	2	2,08	1	1,04	91	94,79	2	2,08	96
Layer 2	—	—	3	2,48	1	0,83	117	96,69	—	—	121
Layer 3	—	—	—	—	—	—	55	100,00	—	—	55
Layer 4	—	—	—	—	—	—	18	100,00	—	—	18
Total Layer											
Layer 1	14	1,04	67	4,96	25	1,85	1191	88,09	55	4,07	1352
Layer 2	32	1,73	149	5,70	76	2,91	2290	87,67	65	2,49	2612
Layer 3	6	0,49	87	7,14	51	4,19	1047	85,96	27	2,22	1218
Layer 4	3	1,38	21	9,63	5	2,29	187	85,76	2	0,92	218
Overall											
	55	1,02	324	6,00	157	2,91	4715	87,31	149	2,76	

TABLE 9

Clarke's Shelter: frequency of adzes with 2 or more notches.

	Layer 1		Layer 2		Layer 3		Layer 4	
	n	%	n	%	n	%	n	%
Single notch	14	66,67	22	59,46	14	73,68	3	60,00
Double notch	6	28,57	13	35,14	5	26,32	2	40,00
Triple notch	1	4,76	2	5,41	—	—	—	—
Total	21		37		19		5	

and 6 % of this category, an ochre stained palette in Layer 1 and a groundstone piece in Layer 2. A selection of scrapers, adzes and backed pieces have been illustrated in Figs 23–25.

A smaller proportion of scrapers have been backed than at Diamond 1; 8 % in Layer 1, 3 % in Layer 2, 7 % in Layer 3 and none in Layer 4. No scrapers were backed opposite the working edge and there is an almost equal number of scrapers backed along one or both sides.

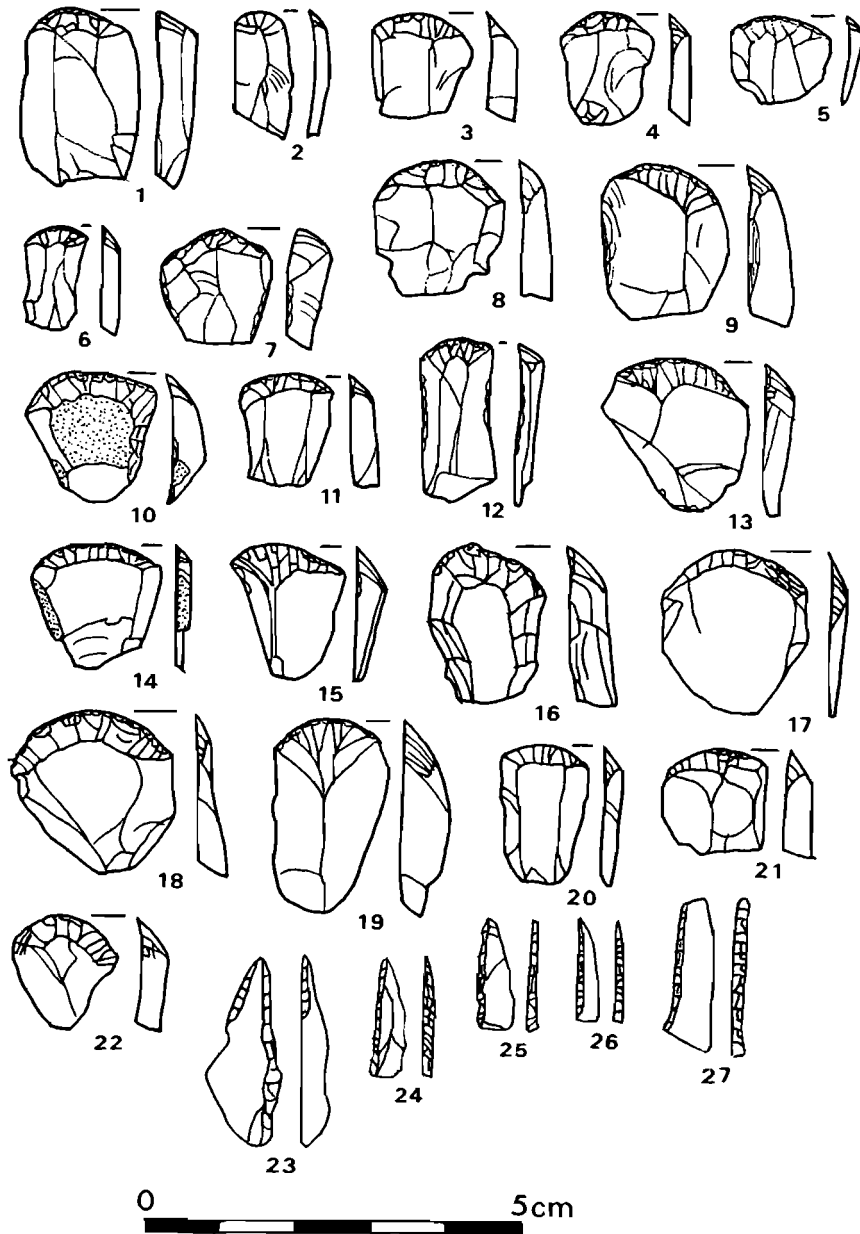


Fig. 23. Clarke's Shelter: Scrapers; Layer 1, 1-9; Layer 2, 10-17; Layer 3, 18-22; Backed pieces; Layer 1, 23; Layer 2, 24 & 25; Layer 3, 26 & 27. All made from CCS.

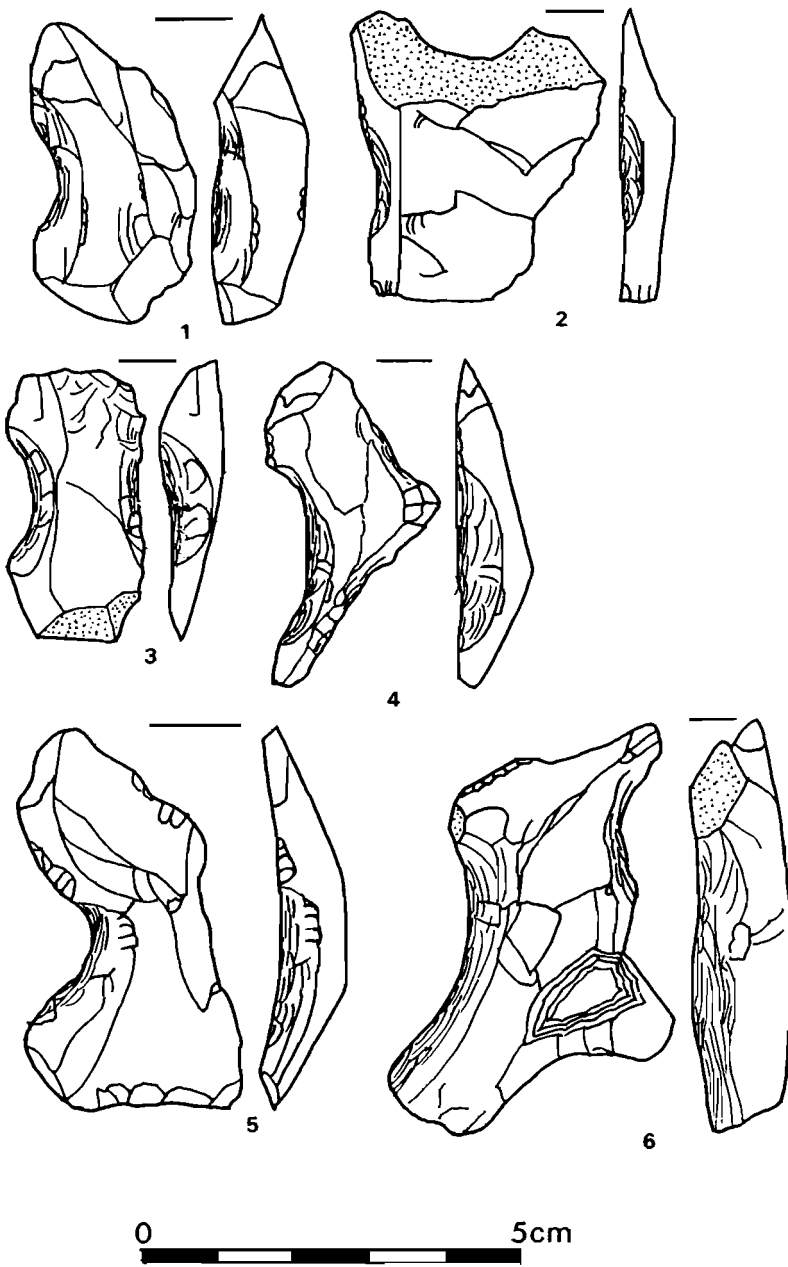


Fig. 24. Clarke's Shelter: Adzes; Layer 1, 1-5; Layer 2, 6. All made from CCS.

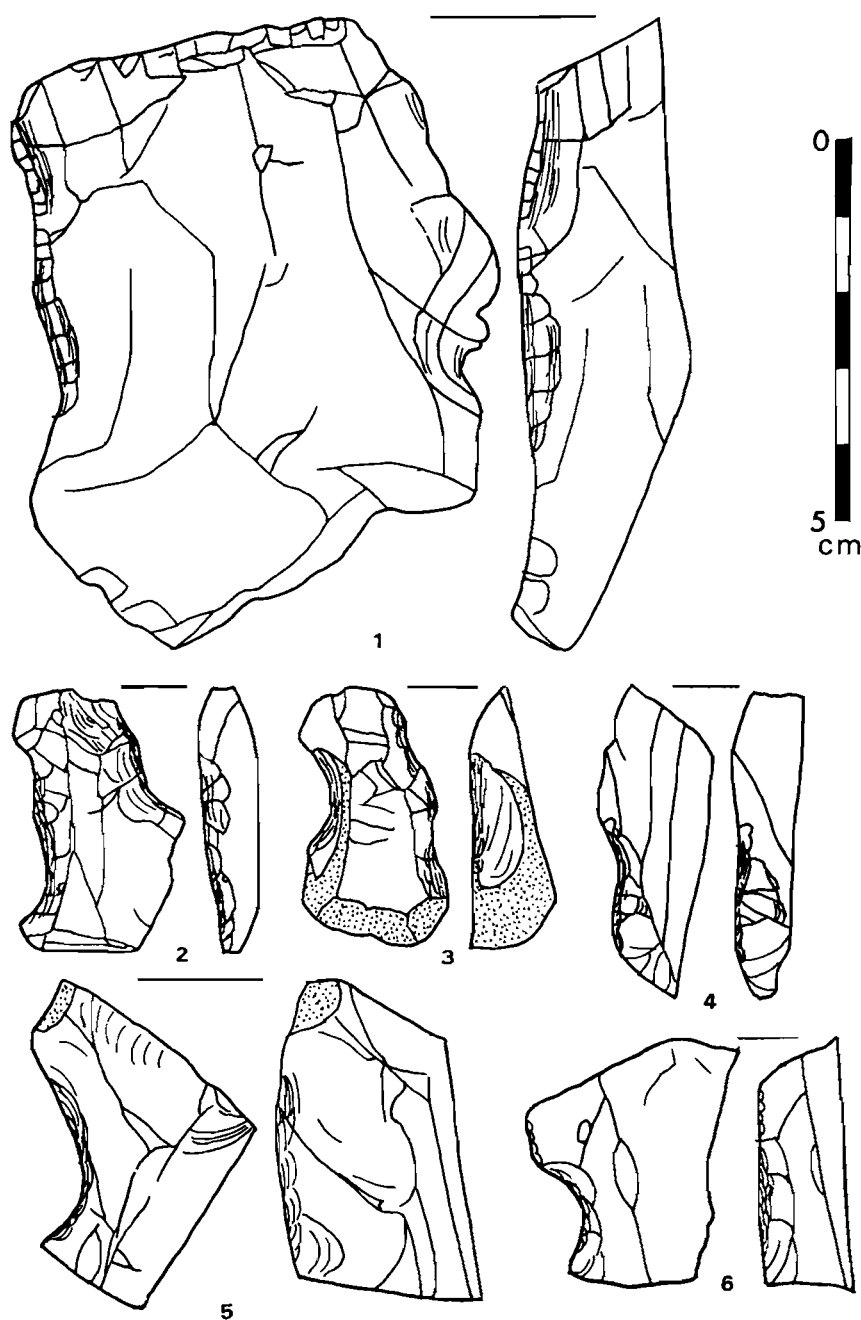


Fig. 25. Clarke's Shelter: Adzes; Layer 2, 1-4; Layer 3, 5 & 6. All made from CCS.

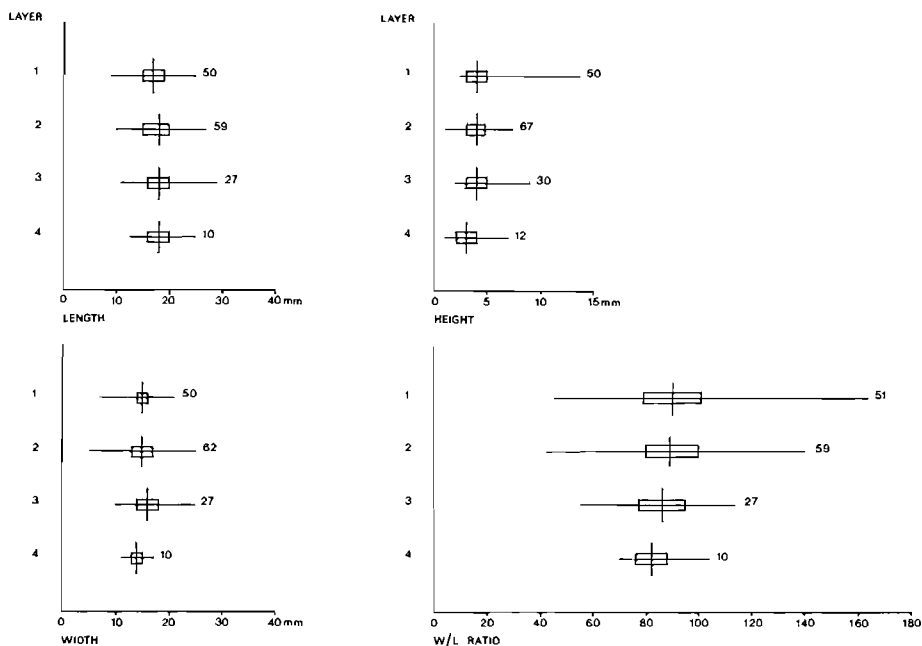


Fig. 26. Clarke's Shelter: Dice-Leraas diagram of scraper dimensions.

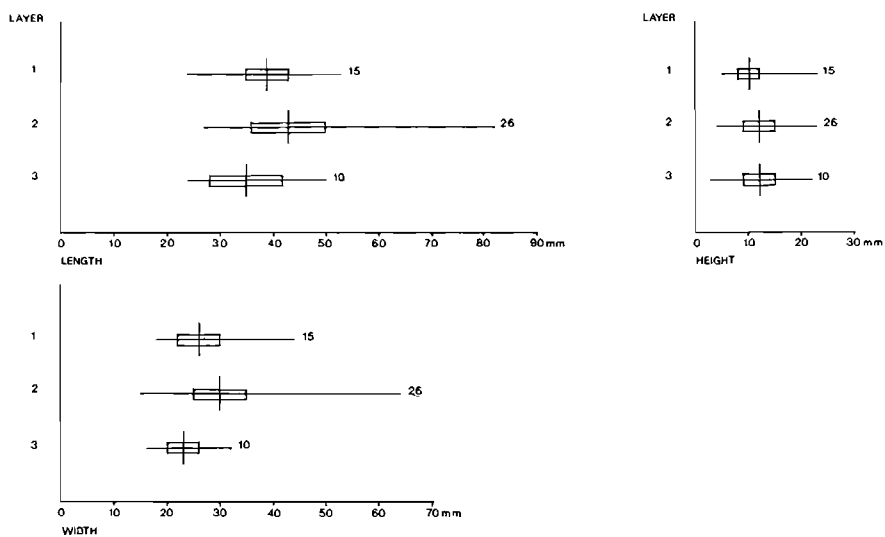


Fig. 27. Clarke's Shelter: Dice-Leraas diagram of adze dimensions.



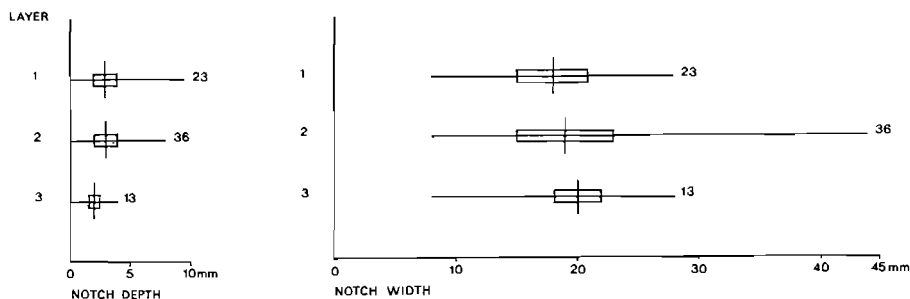


Fig. 28. Clarke's Shelter: Dice-Leraas diagram of adze Notch Width and Notch Depth dimensions.

Homogeneity characterises the scraper dimensions in the different layers (Fig. 26) with mean length identical and mean width and height only slightly different. As a result scrapers in the different layers exhibit similar width:length ratios with the exception of Layer 4 where scrapers are slightly more elongate (Fig. 26).

Layer 4 is omitted from the discussion of adze dimensions as only two of the pieces were measured. More variability exists among the adzes than among the scrapers. Adzes are smallest in Layer 3, largest in Layer 2 and intermediate in Layer 1 (Fig. 27). These shifts are not mirrored in the plan morphology where the tendency is for adzes to become less elongated and more square with time (Fig. 27). Adze mean height appears not to be greatly influenced by the aforementioned perturbations (Fig. 27). Similarly the mean notch depth and notch width shows greater consistency through time (Fig. 28).

### Pottery

Although the pottery sample is small and undecorated it is significant. Pottery was recovered from Layer 1 (35 sherds), Layer 2 (38 sherds) and Layer 3 (9 sherds). Study of the rimsherds indicate that the vessels present are either U-shaped or bag-shaped. One U-shaped pot was recovered from Layer 1 and four U-shaped pots and two bag-shaped pots from Layer 2. There were no rimsherds in Layer 3. The thicker sherds in Layers 1 and 2 suggests that larger, storage-type vessels were also used at this site. Burnished sherds occur in all three layers (three in Layer 1 and one each in Layers 2 and 3), and all of these, except for one red burnished sherd in Layer 2, have dark burnish. The sherds in Layers 1 and 2 have similar mean thicknesses and Layer 3 sherds have a smaller mean thickness (Table 10). No sherds in Layer 3 were thicker than 10 mm whereas in Layer 1, nine were thicker and in Layer 2, eight. An interesting feature of this assemblage is that the cores of the sherds, excluding the above detailed thicker sherds which are orange, vary in colour from grey-black to grey-brown. This is characteristic of sherds from the Highveld regions, where, owing to the paucity of wood, pots were dung fired (Maggs 1976). Iron Age pottery of Natal, on the other hand, had orangey-coloured cores produced by wood firing.

According to Maggs (pers. comm.), who has looked at the assemblage, nothing in it resembles Early Iron Age (EIA) pottery, and the simple vessel design makes

TABLE 10

Clarke's Shelter: pottery thicknesses.

	n	mean	Standard deviation	Minimum thickness	Maximum thickness
Layer 1	31	9,81	2,53	5	18
Layer 2	34	9,32	3,25	5	20
Layer 3	9	7,78	1,13	6	10

it more similar to the Later Iron Age (LIA) pottery of the adjacent areas (Maggs 1982). However, even if it is argued that the pottery in Layer 3 is intrusive and does not date to 2000 years BP there can be no doubt about the *in situ* nature of the pottery in Layer 2 (dated to  $1580 \pm 50$  years BP) which predates the advent of the LIA.

#### Ochre

Most of the 42 pieces of ochre recovered came from the upper two layers; 16 pieces were recovered from Layer 1, 23 pieces from Layer 2, three pieces from Layer 3 and none from Layer 4. The only utilised piece (from Layer 1) was roughly 2 cm in diameter with the ground area 1 cm by 5 mm.

#### Worked bone

Seven pieces of worked bone were recovered from Layer 2 and none from the other layers. All except one of these pieces are undiagnostic fragments of points, linkshafts or awls. The diagnostic article is a broken point.

#### Wood shaving

One wood shaving was recovered from Layer 2.

#### Iron

A heavily corroded piece of shaped iron was recovered from Layer 1 (Fig. 29). It has a mass of 6,6 gm, which without considering its shape precludes its use as an arrowhead. Other suggested uses are that it could be either a small spearhead or a knife.

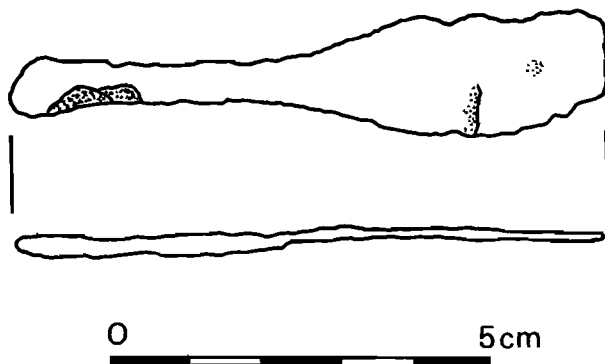


Fig. 29. Clarke's Shelter: Piece of Iron from Layer 1.

## Fauna

Although larger than the Diamond 1 macro- and microfaunal assemblage the Clarke's Shelter assemblage is relatively small. The macrofauna are presented according to the individual layers but have been combined in the ensuing discussion (Table 11). The microfaunal data are presented combined (Table 12).

Two interesting features emerge from the macrofaunal assemblage; firstly, that antelope comprise 50 % of the animals represented and, secondly, the antelope assemblage is dominated by small and small-medium antelope. The non-antelope material comprises an almost equal number of animals (26 %) which are unlikely to have been eaten, such as baboons, jackals, wildcats, a genet and a monkey, and small ground game (24 %), such as dassies, hares, a tortoise, a snake and mongoose, which could have been sources of food. However, in terms of edible meat weight, antelope dominate the assemblage and probably comprise more than 95 % of it.

The antelope identified are mainly small and small-medium antelope (86 %), with small quantities of large-medium and large antelope (14 %). As with Diamond 1 the macrofaunal composition at this site reflects the local availability

TABLE 11

Clarke's Shelter: macrofaunal assemblage.

	No. of Bones/MNI Layers			
	1	2	3	4
Leporidae gen. et. sp. indet., hare	2/1	3/1	1/1	1/1
<i>Cercopithecus aethiops</i> , vervet		1/1		
<i>Papio ursinus</i> , baboon	1/1	9/1	5/2	
<i>Canis</i> sp., canine	2/1	4/1		1/1
<i>Genetta</i> sp., genet		1/1		
Viverridae gen. et. sp. indet., indeterminate mongoose		2/1		
<i>Felis libyca</i> , wildcat	1/1	2/1		1/1
<i>Procavia capensis</i> , rock hyrax	10/1	16/2	5/1	1/1
<i>Raphicerus</i> sp. grysbok/steenbok	3/2		2/1	
<i>Oreotragus oreotragus</i> , klipspringer		6/2		
Bovidae—general				
small	60/3	118/2	78/2	13/1
small-medium	9/2	18/2	6/1	2/1
large-medium			2/1	1/1
large			1/1	

(NB. The small bovid category includes teeth also assigned to *Raphicerus* sp. and *Oreotragus oreotragus*)

TABLE 12

Clarke's Shelter: microfaunal assemblage.

<i>Rhabdomys pumilio</i> , striped field mouse	3
<i>Otomys</i> cf. <i>irroratus</i> , vlei rat	4
<i>Otomys laminatus</i> , laminate vlei rat	3
<i>Cryptomys hottentotus</i> , common mole-rat	1

of antelope. Clarke's Shelter is tucked away in a small side valley deep in the Drakensberg and although larger game would have resided in the vicinity of the site it is likely that smaller antelope would have been considerably more abundant. The presence of klipspringers suggests that the not too distant higher altitudes were exploited from this site. According to Rowe-Rowe (1982) the habitat preferred by klipspringers is the dwarf scrub in the upper Subalpine/Lower Alpine Belts above 2 500 m (8 200 ft).

Monkeys are not common in the Drakensberg but they are thought to migrate intermittently up large river valleys into the lower Drakensberg. There have been recent sightings of monkeys in the northern Giant's Castle Game Reserve and Royal Natal National Park (Natal Parks Board unpublished records).

Dr Margaret Avery who analysed the microfaunal assemblage comments as follows: 'the grass component of the vegetation is indicated on the hillsides by *O. laminatus* and on the flat ground near the river by *R. pumilio*. *Otomys* sp (if *O. irritatus*) would also reflect riverine vegetation and *C. hottentotus* suggests alluvial soils along the river course.'

### Flora

Botanical remains were recovered from the upper three layers. Except for one as yet unidentified seed from Layer 1 the assemblages comprised adiagnostic sticks and twigs.

### OTHER SITES

Artefacts collected by Wilson (1955) on the Natal slopes of the Drakensberg have been re-examined. These were open-air surface sites close to the Tugela River in the Bergville District, and are in the general vicinity of Diamond 1, some being less than 10 km distant. Only the formal tool assemblages from the larger sites are reported here (Table 13). Not knowing the full circumstance of the collecting of these assemblages, I treat them with some caution. Amongst early collectors it appears that the tendency was to overlook the very smallest pieces. Therefore, if a bias exists in the composition of these assemblages it is likely that the microlithic backed pieces are underrepresented. Scrapers, adzes and backed pieces are the most numerous tools at the Wilson sites and varying formal tool assemblages are represented (Table 13). Scrapers are the most numerous of the

TABLE 13

Formal tool frequencies of assemblages collected by Dr Wilson.

	Scrapers		Adzes		B. pieces		Mrps		Borers		Total
	n	%	n	%	n	%	n	%	n	%	
Putteril	193	79,75	8	3,31	28	11,57	12	4,96	1	0,41	242
Hongerspoort B	20	57,14	6	17,14	9	25,71	—	—	—	—	35
Oliviershoek	39	60,94	22	34,38	—	—	3	4,69	—	—	64
Bethel	26	68,42	5	13,16	7	18,42	—	—	—	—	38
Jagersrust	266	89,86	8	2,70	17	5,74	4	1,35	1	0,34	296
Mount Hilda	69	60,53	36	31,58	4	35,09	4	3,51	1	0,88	114

formal tools and generally vary between 57 % and 68 %, but at the two largest sites, Putteril and Jagersrust they are 80 % and 90 % respectively. Adzes range between 3 % and 35 % of the formal tools and backed pieces are absent in one site and then vary between 4 % and 25 %. These proportions are generally within the range encountered at Diamond 1 and Clarke's Shelter.

The composition of the backed piece assemblages are also of interest, especially the occurrence of segments at three sites (Table 14). Only one segment was collected at Bethel but at Putteril and Jagersrust they comprise 39 % and 35 % of the backed pieces. In the other backed piece assemblages backed points are most common, then miscellaneous backed pieces, and then backed blades. At both Putteril and Jagersrust adzes comprise only 3 % of the assemblage and this, together with the composition of the backed piece assemblages, suggests that they predate Layer 3 at Diamond 1. Comparison with other assemblages in the Tugela Basin (Mazel 1984 and unpublished research results) suggests that these assemblages probably postdate 7000 years BP. A potential flaw in this scheme is that at these two sites backed pieces are only 12 % and 6 % of the formal tools. However, it is also at these sites that scrapers are proportionately most abundant and this closely resembles the situation in the lower Main Cave deposits where it was argued that backed pieces are underrepresented (Mazel 1984). Hongerspoort B and Bethel are at a stage when backed pieces, but with few segments, are still more numerous than adzes, and in comparison with Diamond 1 this would suggest that they predate 3000 years BP, but not by much. Finally, the Oliviershoek and Mount Hilda sites resemble the upper Diamond 1 and Clarke's Shelter assemblages and probably postdate 3000 years BP.

A stone assemblage was collected by me from the surface of Gudu River 1, close to Diamond 1 (Fig. 1). Adze proportions are generally higher than at other northern Drakensberg sites (43 %) but not exceptionally so, and scraper proportions are below 50 % (48 %), and no backed pieces were found. Considering these proportions and taking into account that only one piece of pottery was found, it is suggested that this assemblage, or the majority thereof, dates to between 3000 and 2000 years BP.

The Cathedral Peak and Cathkin Park areas, and in particular the Ndedema Gorge, has also been the focus of previous archaeological research. Initial work in this area was done by a team led by Wells in the early 1930's (Wells 1933). They excavated in Nkosazana Shelter, Eland Cave and Buys Cave and collected artefacts from the surface of Stebbel Cave, Brown's Cave and Kaybar's Cave. Unfortunately I have not been able to re-examine this material and Stein's (1933) classification system is inapplicable today. In any event these collections would have to be approached with caution because of the high percentage of formal tools reported (Stein 1933). More recent excavations done together in the Ndedema Valley by Willcox (1971) and Pager (1971) in the late 1960's have been reported separately. Pager's (1971) formal tool frequencies are referred to (Table 16). Except for Shirley's Shelter where backed pieces comprise 31 % of the formal tool assemblage the general picture is of few backed pieces and numerous scrapers and adzes. Scrapers vary between 52 % and 72 % of the formal tools and adzes range between 26 % and 43 % except at Poacher's Shelter where there is an

TABLE 14

Backed piece frequencies of assemblages collected by Dr Wilson.

	Segments		B. points		B. blades		Misc. backed		Total
	n	%	n	%	n	%	n	%	
Putteril	11	39,29	7	25,00	—	—	10	35,71	28
Hongerspoort B	—	—	4	44,44	2	22,22	3	33,33	9
Oliviershoek	—	—	—	—	—	—	—	—	0
Bethel	1	14,29	4	57,14	—	—	2	28,57	7
Jagersrust	6	35,29	4	23,53	—	—	7	41,18	17
Mount Hilda	—	—	3	75,00	—	—	1	25,00	4

TABLE 15

Gudu River 1: stone artefact frequencies.

	n	%	Category	%	Site	Total
Waste						
Chips, chunks and flakes	1329	97,29				
Cores	37	2,71				
<i>Total</i>					90,64	
Utilised						
Utilised flakes	49	98,00				
Pieces esquillés	1	2,00				
<i>Total</i>	50				3,32	
Formal tools						
Scrapers	44	48,35				
Scraper/adzes	1	1,10				
Adzes	39	42,86				
Borer	1	1,10				
Groundstone	1	1,10				
Miscellaneous retouched pieces	5	5,49				
<i>Total</i>	91				6,04	
Site Total	1507					

TABLE 16

Ndedema Gorge: formal tool frequencies (after Pager 1971).

	Scrapers		Adzes		Backed pieces		Bifacial point		Total
	n	%	n	%	n	%	n	%	
<i>Surface collections</i>									
Sebaaini Cave	38	63,33	16	26,67	5	8,33	1	1,67	60
Botha's Shelter	24	72,73	9	27,27	—	—	—	—	33
Poacher's Cave	23	46,99	23	46,99	3	6,12	—	—	49
Junction Shelter	24	54,55	19	43,18	1	2,27	—	—	44
<i>Excavated assemblages</i>									
Shirley's Shelter	12	46,15	6	23,08	8	30,77	—	—	26

equal amount of adzes and scrapers, 47 %. Thus, except for the Shirley's Shelter assemblage which in all likelihood predates 3000 years BP, the other assemblages probably postdate 3000 years BP.

The southernmost site worked in the northern Drakensberg is Main Cave, in the Giant's Castle Game Reserve (Willcox 1957, Holliday n.d.) The stone assemblage excavated by Willcox (1957) has been re-examined by the author. These results are used in preference to Willcox's (1957). The chronology of this site has been discussed elsewhere (Mazel 1984) and the view was expressed that the 60 cm to 90 cm deposits predate 3000 years BP and that the overlying deposits postdate 3000 years BP. Concern was expressed about whether the sample studied is an accurate reflection of the Main Cave lithic assemblages—thus it is included in these discussions with reservation (Table 17). Scrapers comprise over 80 % of the formal tools in the lower deposits and range between 45 % and 60 % in the upper deposits; adzes vary between 5 % and 20 % in the lower deposits and between 25 % and 35 % in the upper deposits; and backed pieces are less than 5 % throughout the sequence.

TABLE 17

Main Cave: stone artefact frequencies.

	0-30 cm		30-45 cm		45-60 cm		60-75 cm		75-90 cm	
	n	%	n	%	n	%	n	%	n	%
Scrapers	14	48,28	60	60,00	58	52,25	21	87,50	12	80,00
Adzes	8	27,59	26	26,00	38	34,23	1	4,17	3	20,00
Backed pieces	—	—	2	2,00	2	1,80	1	4,12	—	—
Borers	—	—	2	2,00	—	—	—	—	—	—
Palette	2	6,90	1	1,00	—	—	—	—	—	—
Grooved stone	1	3,49	—	—	—	—	—	—	—	—
Miscellaneous retouched pieces	4	13,74	9	9,00	13	11,71	1	4,17	—	—
Total	29		100		111		24		15	

## DISCUSSION

With the data presented the task of reconstructing the mid- and later Holocene prehistory of the northern Natal Drakensberg can begin. Many gaps still exist and the most disappointing aspect of the fieldwork programme was the paucity of botanical remains recovered. Notwithstanding this, a picture is beginning to emerge and this will be discussed.

No attempt will be made to pigeon-hole the lithic assemblages into any of the Industries recognised by previous researchers in this area. While acknowledging, with some reservation, the usefulness of these terms for discussions with colleagues and perhaps when conducting inter-regional surveys, their usefulness is limited where assemblages in a single research area have been properly described. It has already been shown (Mazel 1981) that past researchers, although aware that a 'perfect fit' never existed between their assemblages and the scheme outlined by Goodwin & Van Riet Lowe (1929), continued classifying their assemblages according to that scheme, thereby adding to the confusion of the nature of the

northern Drakensberg assemblages. Continued use of these terms (except 'Smithfield N'), originally coined for other areas of southern Africa, and relating to specific assemblages, would mask the true nature of the northern Drakensberg assemblages.

The northern Drakensberg was inhabited during the Middle Stone Age (MSA) (Mazel 1982). However, the paucity of MSA sites and artefacts led to the conclusion that this occupation must have been ephemeral. No artefacts or other evidence exists which suggests a pre-7000 BP LSA occupation of either the northern Drakensberg or Tugela Basin. However, a date of  $7670 \pm 55$  years BP has been obtained from Good Hope Shelter in the southern Natal Drakensberg (Cable *et al.* 1980) and there is a possibility that early Holocene deposits may still be found in the Tugela Basin.

A tripolar graph grouping the northern Drakensberg assemblages using backed pieces, adzes and scrapers as variables is shown in Fig. 30. Information presented in previous sections and in this graph indicates that the composition of the formal tool assemblages in this area underwent numerous shifts in the mid- and later Holocene: scrapers exhibit no temporal distribution patterns but backed pieces

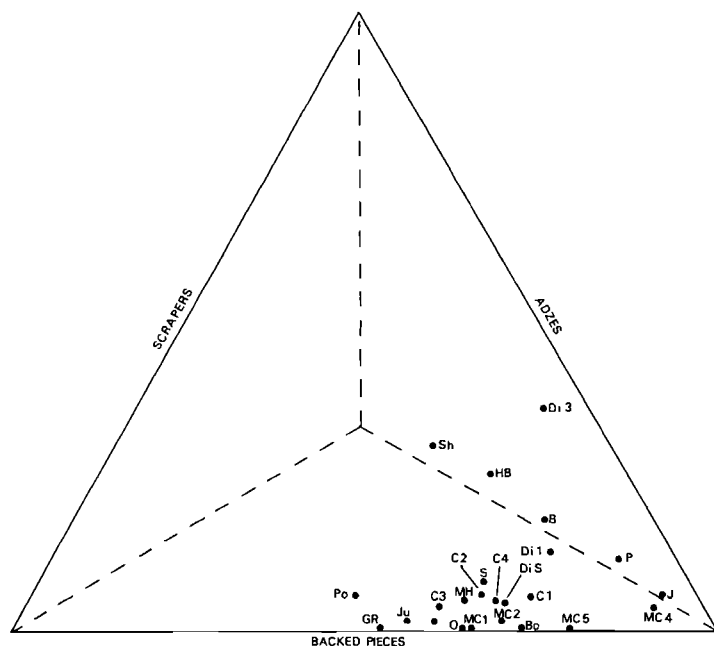


Fig. 30. Tripolar graph grouping sites in the northern Natal Drakensberg using scrapers, adzes and backed pieces as the variables.

- |                        |                     |
|------------------------|---------------------|
| B = Bethel             | Bo = Botha's Cave   |
| C = Clarke's Shelter   | Di = Diamond 1      |
| GR = Gudu River        | HB = Hongerspoort B |
| J = Jagersrust         | Ju = Junction Cave  |
| MH = Mount Hilda       | MC = Main Cave      |
| O = Oliviershoek       | Po = Poachers Cave  |
| P = Putteril           | S = Sebaaini Cave   |
| Sh = Shirley's Shelter |                     |



and adze frequencies shifted temporally. In the older excavated assemblages and some of the surface assemblages, backed pieces proportions are relatively high and then decrease considerably whilst adze frequency increases from being almost absent in the older assemblages to close to half the formal tools at a few of the sites. At Clarke's Shelter there is a decrease in adze frequency in the upper layers. This phenomenon has been noted in the upper deposits of other sites in the Tugela Basin and its significance has been discussed elsewhere (Mazel 1984). In short, it was suggested that the post-2000 years BP decrease in adze frequency may be related to the introduction of iron into the Tugela Basin.

Other trends also characterise the formal tool record: firstly, if the Putteril and Jagersrust assemblages are earlier than the lower Diamond 1 assemblages then there are changes in the composition of the backed piece assemblages, with a reduction in segment frequency and concomitant increase in the number of backed points and backed blades; secondly, a greater proportion of scrapers is backed at Diamond 1 than at Clarke's Shelter and the types of backing varies between layers at Diamond 1; thirdly, mean scraper width is greater at Diamond 1 than at Clarke's Shelter and this has, in turn, influenced the width:length ratios; and, finally, there is a noticeable shift in adze length at Diamond 1. The nature and rapidity of the abovementioned shifts are important both in describing and explaining regional trends and in interpreting changes in other contemporary archaeological sequences on the subcontinent.

Later Holocene increases in adze frequency not only characterise assemblages in the northern Drakensberg and Tugela Basin (Mazel 1984) but also those of the southwestern, southern and eastern Cape (Parkington 1980). In trying to understand this phenomenon Parkington (1980) suggested that growing populations may have caused more intensive exploitation of certain food resources, including underground plants. This would have resulted in a greater use of digging sticks, the implements used to gather such plants. The increased manufacture and maintenance of these implements would have led to a greater emphasis on woodworking activities, and the use of adzes as woodworking tools is now well documented. A hypothesised increase in population density in the late Holocene accords well with the temporal distribution pattern of sites in the area under review. Of the 24 assemblages mentioned in this paper it could be argued that six (25%) predate 3000 years BP, three (13%) are around 3000 years BP and 15 (63%) postdate 3000 years BP. This explanation of the increase in adze frequency in the northern Drakensberg is offered tentatively, although it is appreciated that further investigation is required. More palaeoenvironmental and resource exploitation data and more dated lithic assemblages are needed.

Parkington (1980) has not commented on how the decrease in backed pieces can be interpreted within this framework. Are these decreases merely correlated with the increase in adze frequency or is there an actual decrease in the use of backed pieces? Either way, backed pieces assume less importance in the later Holocene. The precise functions of backed pieces are unknown, but the most convincing suggestion is that they were employed in the hunting and subsequent butchering of animals; either as projectile points or cutting implements. The obvious implication is that the importance of meat decreased. The Diamond 1 and

Clarke's Shelter faunal and floral assemblages are too small to throw light on this hypothesis, but it remains worthy of future testing. Another factor requiring consideration is whether or not backed pieces were replaced by other tools, for instance bone tools, as appears to have been the case in other areas (Deacon 1982, Humphreys 1979). The small worked bone samples from Diamond 1 and Clarke's Shelter preclude any analysis of this kind. The possibility that the variability in backed piece frequency at Clarke's Shelter and Diamond 1 relates to the hunting of different animals is not considered plausible. There is no indication that the change in backed piece frequency at Diamond 1 corresponds with changes in the faunal record. There are assemblages in the vicinity of Diamond 1 which resemble Clarke's Shelter and vice versa.

Although scraper proportions do not exhibit temporal shifts they do change in backing and size. Explanations for these phenomena cannot be given at present, but it is unlikely that these shifts reflect changes in scraper function. Possible reasons for the composition changes in assemblages of backed pieces in the Tugela Basin have already been discussed (Mazel 1984). It has been tentatively suggested that tasks previously performed exclusively by segments were now the function of backed points, backed blades as well as segments, perhaps indicating a greater specialisation in the use of backed pieces.

The temporal distribution of upper and lower grindstones is of interest, they are more abundant in the adze rich horizons at Main Cave (Mazel 1984) and Clarke's Shelter. Grindstones were probably used in the processing of underground plant foods. Assuming that there was a greater emphasis on plant foods in the diet of the later Holocene peoples, the temporal distribution of these artefacts becomes explicable.

Pottery samples at Clarke's Shelter and Diamond 1 are small (less than 90 sherds combined). However, the main value of these samples lies in their chronology. Included in this discussion is the Driel Shelter pottery assemblage which is similar in content and style to Clarke's Shelter (Maggs & Ward 1980, Maggs pers. comm.). As already mentioned, even if the pottery in Layer 3 at Clarke's Shelter, dated to approximately 2000 years BP, is intrusive, it cannot be doubted that the pottery recovered from Layer 2, dated to roughly 1500 years BP, is in its primary context. Similarly at Driel Shelter, although the two sherds recovered from the CS layer have been considered intrusive by the authors, 14 sherds were recovered from the overlying OA layer dated to roughly 1800 years BP. None of the pottery at these sites resembles EIA pottery, although coeval with it. Considering vessel shape and manufacture this pottery is similar to LIA pottery but predates the beginning of the LIA by at least 500 years. This similarity may be purely fortuitous owing to the simplicity of the pottery recovered from both these contexts.

The emerging scenario is that the LSA inhabitants of the northern Drakensberg and adjacent areas were using pottery by 1500 years BP and perhaps as early as 2000 years BP. This pottery was distinct from EIA pottery in use in Natal at the time. Conclusive explanations for the origin of this pottery cannot be offered at this stage, but three possible explanations exist: firstly, that the knowledge of pottery was developed locally; secondly, that the knowledge of pottery originated

with contact with EIA peoples and, thirdly, that pottery was introduced into this area from elsewhere. Relevant to the third alternative is Beaumont & Vogel's (1984) argument that pastoralists, bringing with them pottery, entered the northern Cape before 2100 years BP, and also that the earliest pottery in the southwestern and southern Cape has to have been dated to around 2000 years BP (Deacon 1982). Continuing research in this area and the Tugela Basin should provide more support for one or more of these alternatives.

The macrofaunal samples presented allow for an interesting comparison; Diamond 1 with its large plains animals and Clarke's Shelter with its smaller, hillslope grassland animals by and large reflect the local availability of antelope. The presence of klipspringers at Clarke's Shelter indicates that the hunters operating from that site exploited the nearby higher Drakensberg. Small macrofaunal assemblages preclude definite seasonal inferences. Attention should, however, be drawn to the seasonal movements of the larger, gregarious antelopes. Scotcher's (1982) research has illustrated that the critical feeding period for eland is between July and October. Early white travellers in Natal recorded that the larger, gregarious plains animals migrated seasonally, abandoning the Drakensberg in the colder, winter months for the lower lying midland areas (Mann 1859). Paintings of eland in the Natal Drakensberg show that herd groupings that would only have been visible in the summer comprise 88 % of the seasonally determinable eland paintings (Mazel 1983). This seasonal information obviously has more relevance for the Diamond 1 macrofaunal sample.

Animals alone would not have made up the diet, and therefore another crucial aspect to consider is the availability of plant foods. No local evidence is available on the quantitative input of the various food elements of the diet but, by analogy with recent research of the San in the Kalahari, it is likely that plant food played a significant role, perhaps even that of a staple. By plotting the seasonal availability of 23 species of edible plants which occur in the Highlands Sourveld, Cable (1982) has shown that the period from May to September is when plant food resources are lowest. One of the most disappointing aspects of the excavations was the small size of the botanical samples recovered, thus precluding more conclusive statements on the seasonal occupation of the northern Drakensberg. Nevertheless one must agree with Cable (1982:279) that, 'although no unequivocal conclusions excluding the possibility of year-round occupation of sites in this zone, can or should be drawn, the clear implication of the range of ecological, archaeological and ethno-historic evidence available is that occupation of the Drakensberg and adjoining parts of eastern Lesotho was primarily scheduled for spring and summer, October to March'.

One of the most striking features of the 5000 to 1500 years BP period in the northern Drakensberg is the nature and rate of the changes that occurred, especially amongst formal tools. The timing and nature of the changes varies according to the parameters used to identify them and therefore the understanding and interpretation of them cannot be subsumed under any one theory. This has been recognised by J. Deacon (1982:471): 'One theory will not be suitable for the explication of all variability and, by extension, different

methodologies will be required for the study of each.' Perhaps this is the most severe criticism of the recent debate in the South African Archaeological Bulletin on Parkington's (1980) 'Time and Place' article which investigated change in the LSA of South Africa in the preceding 20 000 years BP. Not enough attention was paid to the question of the parameters used in identifying and interpreting shifts in the archaeological record.

I do not wish to become too immersed in the debate of whether change occurs in a 'punctuated' or 'continuous' fashion as a more comprehensive report covering all the sites worked in the Tugela Basin is being planned, it suffices to say that the formal tool results presented in this paper argue if not for almost continuous change then shifts occurring at regular intervals. A good example of this is the shift in adze frequency at Diamond 1 and Clarke's Shelter: 4 % (4900–3000 years BP), 15 % (2800 years BP), 20 % (2800–2500 years BP), 27 % (2800–2300 years BP), 35 % (2300–2100 years BP), 31 % (1580 years BP) and 22 % (post-1500 years BP). As Parkington (1980) was at pains to point out, punctuated change is often more a reflection of the inadequate dating of a single deposit or a series of deposits. In this regard six dates have been obtained for a period of roughly 3 500 years and, although by comparison with other contemporary LSA sites in southern Africa these sites have been well dated, the interpretation of the deposits and cultural material would have benefitted from more dates. The message emanating from this is clear and has been voiced recently by Parkington (1980) and J. Deacon (1982) and that is, that there is an urgent need for 'obtaining densely stratified series of radiocarbon dates' (Parkington 1980:109).

#### CONCLUSION

Using Diamond 1 and Clarke's Shelter as key sites a framework for the mid- and later Holocene LSA prehistory of the northern Natal Drakensberg has been established. This record is incomplete and more pieces still need to be added to the puzzle. It is to these aims that future research should be directed. This area is poorly endowed with large surface artefact scatters and fieldwork will have to concentrate on the excavation of *in situ* deposits.

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